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EXTRACT OF RED BONE MARROW

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The Charlotte Medical Journal.

VOL. XXX CHARLOTTE, N. C., JANUARY, 1907. No. 1

Importance of Surgical Drainage, with Cases Cited.

By Dr. David T. Tayloe, Washington, N. C., Ex-President Medical Society State of North Carolina, Surgeon in Chief Washington City Hospital.

Since Chossaignac, who was first to use it, systematic drainage has remained firmly established in surgery. It is true that its scope has been considerably curtailed by modern surgery; still, in the vast field of suppurative affections and in the surgery of certain cavities drainage remains indispensable. In every fresh wound there is regularly an escape of a bloody, serous fluid, rich in albumen, from the divided tissues, the open capillaries, and lymph spaces, and it corresponds in amount with the size of the wound and the number of cavities and pockets. The formation of these cavities in the wound should be prevented as far as possible by sutures, and by the application of a dressing exerting proper pressure. By means of the latter we try to promote the agglutination of the more deeply lying tissues which have been divided, and thus to diminish the ensuing secretions —a matter of much importance. In small wounds the pressure exerted by the dressings is sufficient to obtain rapid healing, and it is not necessary to use means for conveying off the secretions except where suppuration is already present, and in the case of large fresh wounds. But if suppuration is present we must provide suitable channels for the escape of the secretion in the shape of drainage of some form. Unless we do this the secretions are retained in the wound and prevent primary union. Moreover, opportunity is given for the secretion to decompose and for pus to form, and, as a result of the retention of the pus or decomposed secretion of the wound, spreading suppurative inflammation or general infection of the whole system takes place from absorption of the infectious material. The bloody, serous secretion present in the wound, and the blood which has escaped, are highly decomposible, on account of their albumenous character, and consequently it is a matter of great importance to provide careful drainage in large clean wounds, and particularly in those which are already infected.

I am mindful of the fact that at the present time attempts have been made to do away with drainage in wounds made in aseptic operations, but many good surgeons still rely upon it. As a matter of fact, it is indispensable for the first twenty-four to forty-eight hours in large aseptic wounds, even after they have been closed by sutures, for example: after disarticulation of hip-joint, or amputation of the breast, accompanied by cleaning out of the axilla, the secretion from the wound and the effused blood can thus escape, and so do not prevent the edges of the wound from quickly uniting by primary intention. If this serum is allowed to collect in the deeper parts and irregularities of the wound, it not only mechanically separates the surfaces and gives rise to tension, a course in itself of the continuance of inflammation and hence of the non-healing of the wound, but it is also liable to undergo decomposition and putrefaction, and form a suitable nidus for the growth of pyogenic micro-organism.

Drainage should always be considered during an operation, when infection has been introduced; when trauma has been done to the peritoneum; when raw and oozing surfaces must be left; when general peritonitis or acute local peritonitis has been found. Hemorrhage may be a condition demanding drainage.

I am aware that an experienced and dexterous operator can manage very bad adhesions, but there are cases where it is safer to use drainage. I will cite a few instances in which I believe drainage was a life-saving procedure:

Case 1.—An old lady, age seventy, was operated on for a very large ovarian tumor, extensively and densely adherent, where the pulse became so rapid and feeble it was impossible and out of the question to take time to stop a general oozing. I filled the lower abdomen and side of pelvis with large amount of gauze drainage, and in a few days the packing was removed and rapid recovery followed.

Case 2.—A young woman, age twenty-seven, suffered many attacks of recurrent appendicitis and was sent to me for operation. The abdominal wall was much thickened; the peritoneum of almost cartilaginous hardness, and the whole parts so unusually vascular, that no time had to be lost in completing the operation—adhesions everywhere. Diligent search revealed a large hard appendix displaced into the pelvis, attached to right ovary which had very much enlarged, and upon careful examination found it to be ovarian pregnancy about six weeks. The entire mass was removed, and quantity of gauze drainage placed in lower abdomen and right side of pelvis. It continued to drain very freely for ten days, and recovery was uninterrupted.

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Case 3.—Young man, age seventeen years, was stricken a severe blow with base ball bat, producing an ugly depressed fracture of the skull; was brought to my hospital in a semi-conscious condition; had convulsions just after receiving blow. I removed several large pieces of the skull that were driven through the dura-mater, necessitating a few sutures in the much lacerated membrane. There was considerable oozing from the dura-mater, and fearing that it would trickle down between the membrane and the skull I placed gauze drainage over the raw surface before bringing the flaps together. There was a free discharge for sixty hours of bloody serum. The drainage was removed; union by first intention; recovery complete in three weeks.

Case 4.—Young girl, age fourteen, appendectomy performed. In removing same ruptured the lower end which was slightly adherent, and just a few drops of pus escaped on my fingers, which I thought was brought safely out of the abdomen, though being in doubt I put in gauze drainage which was removed in forty-eight hours with best results—recovery complete.

I will not detain you longer. Could cite many cases in which drainage has saved life, and I regard it as a most valuable adjunct to surgery, and will always drain when in doubt.

Fractures of the Leg.*

By W. A. Monroe, M. D. Sanford, N. C.

Fracture of the leg occurs about third in order of frequency as compared with other bones of the body, and while it is a rather common-place subject it has often been an interesting one to me. I have not selected it with the hope of being able to teach anything particularly new, but for the privilege of mentioning some irregular cases, and with the hope that my remarks might elicit a discussion that may be interesting to all.

In ordinary simple and compound fractures we all have some method of treatment satisfactory to ourselves by which we get good results, and it is always best to stick to it until we have thoroughly acquainted ourselves with a newer and better one. The main indications being: first, to save the limb; second, to secure all possible usefulness, and third, to preserve as good cosmetic appearance as possible. For this purpose I have found that a well-adjusted fracture box, for first five to ten days, followed by a plaster cast, is a very satisfactory method of treatmeht.

The cases which have given me most concern have been those of badly mangled limbs, and case of delayed union. In this connection we have no fixed rules by which we can determine when to amputate or when not to amputate, nor when an un-united fracture should be wired, or otherwise fastened; but, with our present knowledge of aseptic and antiseptic surgery, where there is a possibility of good circulation of blood, and nerve supply beyond the point of injury, and the injured parts can be replaced so as to proximate the original continuity of the leg, it is our duty not to amputate hastily, but to put it up loosely; and when I say loosely I think it well to emphasize this point, for, doubtless, many a limb has been lost on account of being too tightly bandaged for the first twenty-four hours. I think it well to use plenty of cotton around limb, and have bandage loose enough to allow free circulation through injured vessels. If the bones should slip a little we can easily re-set them any time during the first ten days. In cases of delayed union, we have plenty of time to decide what is best to do, and should always be careful to exhaust all therapeutic and mechanical measures available before making a new wound.

From memory I will report three cases which have some bearing on the above.

Case I.—W. B. M., white, machinist, while removing a stack from boiler it slipped and caught his leg against a stump, cutting both bones, together with the soft parts, back to the muscles of the calf, at a point about three inches below knee joint.

To those witnessing the accident it looked as if amputation was the only remedy, but I found good circulation in dorsalis pedis artery; cleaned and sutured wound, put leg up in a fracture box, and kept it in this appliance until the external wound was about closed, after which I used a plaster cast extending well up the thigh. The external wound healed rather slowly, requiring about one month. I removed plaster cast about every three weeks after applying it, looking for bony union, which I did not find until the middle of the fifth month. I attributed this delay to the large external wound which allowed the inflammatory lymph to escape, which should have gone to form the provisional callous.

Case II.—L. C., colored boy, living fifteen miles in the country was thrown from a mule, causing a compound fracture of the left leg, about two and one-half inches above the ankle joint. I saw him about ten days after the injury with an elderly physician who had been unable to keep fracture reduced. I found about two inches of upper end of tibia projecting through an open sloughing wound, with a gangrenous odor; the foot was drawn outward and back-

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting at Savannah, Ga., July, 1906.

ward by the muscles above. Patient having temperature of 102 degrees, quick pulse, and an emaciated appearance. I cleaned wound and surrounding parts as thoroughly as possible; reduced fracture and put limb in well-adjusted fracture box and directed him to be brought to town, fully expecting that it might be necessary to amputate the limb next day. But on the following day I found him more comfortable; temperature and odor about gone, and wound looking healthier. His condition continued good from day to day; a small sequestrum came from inside of exposed tibia; wound healed by granulation and I was able to discharge patient with good leg in about two and one-half months.

Case III.—C. A., colored man, age 55, living 7 miles in country, with domestic surroundings as poor as could be, was cutting tree, which lodged, and in order to fell it cut it again as high as he could reach. In falling the butt of the tree caught his left leg and mashed it into the earth about 12 inches, causing a compound, comminuted, complicated fracture of the lower part of the leg. The upper fragment of tibia was sticking through an open wound on the inner side of leg into his dirty clothing, about six inches above the ankle joint. A long lacerated wound on side of foot just below external malleolous. I felt that this case was one that would justify immediate amputation, but, owing to the fact that he had a weak heart, with a very distinct mitral resurgitant murmur, and on account of inability to obtain suitable assistance before night, I cleansed wounds, removed all spiculae of bones I could, and fixed up limb in fracture box, expecting that amputation would be imperative in a few days. But, on return, I found patient feeling comfortable, no fever, very little pain, and not much swelling. His condition continued good. He never suffered much pain nor developed any very acute inflammatory symptoms; the open wounds healed by granulation in about forty days. In sixty days he seemed to have some kind of fibrous union, at which time he began going on crutches, and later he walked with a stick, but did not get good bony union until about two years after injury. He now has good limb, with limited motion in the ankle joint.

Some Remarks Upon the Operative Treatment of Fractures.*

By William Weston, M. D., Columbia, S. C.

Mr. President and Gentlemen:

On account of the many failures and the resulting disappointment to the surgeon and the loss to all parties concerned, surgeon, patient and perhaps corporation, resulting from the old methods of treating fractures I have decided to present this article upon the new and more successful method, that is the operative treatment; a treatment that is each day growing more popular because it is the logical one and the one that must appeal to each one of us. As in our corporation work we are bound to meet with them.

I feel sure that you will bear with me a little while when you review, as I so often do, the cases of ugly deformities, loss of function and perhaps professional reputation that has occurred in the practice of each one of us, and yet, we were not to blame, because we followed with the utmost care and diligence the method in vogue, the one whose foundation rested solely, in most instances, on chance, and we all know how fickle dame fortune is.

Under the old and so-called conservative treatment when we met with a disappointing result (which is variously estimated by different authors from 40 to 70 per cent), we frequently attributed it to our old and faithful friend "exuberant callus." But the X-ray came along and revealed to us that this lotion of Divine origin that had for generations soothed the wounded feelings of those of us who met with disappointing and unfortunate results was nothing else than a mass of comminuted bone, whose presence prevented desirable union.

Any mode of treatment has in view the accomplishment of the following objects:

1st. To save life.

2nd. Perfect reduction, approximation and permanent retention of the fractured ends.

3rd. Prevent deformity.

4th. Restore usefulness to the injured part.

5th. And to restore this usefulness with the least loss of time.

Whatever treatment that accomplishes these objects with the fewest exceptions is undoubtedly the best. I believe, if the experience of such men as Senn, Deaver, Cushing, Bowles, Kelly, of Philadelphia, and many others is accepted, we must conclude that in most cases the operative treatment gives the best results. Surely if Scudder's statistics are correct we should be most anxious for a change. He states that in the observation of cases from three to five years after injury treated at the Massachusetts General Hospital under the non-operative methods the results were as follows: Fracture of the hip: results poor in eighty-one per cent; fractures of femur: perfect results in children; in adults thirty-one per cent. perfect and sixty-nine per

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cent. imperfect, and in old age none were perfect. In fractures of the leg poor results were obtained in sixty per cent. of closed fractures and seventy-nine per cent. of compound fractures. Various authors of wide experience state that the mortality in compound fractures under strictly aseptic operative treatment has been reduced from fifty to seventy per cent. to almost nothing. The results obtained from the operative treatment in closed fractures seem equally good. Especially is this treatment indicated where there exists interposed between the fragments, muscles, nerves, blood-vessels, tissue or comminuted bone. This method is beyond question the proper form of treatment where adjacent blood-vessels, nerves or muscles are injured. Kelly in his statistics states that this treatment gives the best anatomical and functional results when applied to the following: Fracture of the skull and spine, the clavicle when much displacement exists, neck of the femur when patient is under fifty years old, supracondyloid fractures of the femur, fractures of the patella, oblique and spiral fractures of the tibia, fractures of the upper end and condyles of the humerus, fractures of the middle of the radius, and of the olecranon. The advantages claimed by the advocates of the operative method of treating closed fractures are in brief about as follows: Accurate approximation of the fractured ends of the bone is made possible by several methods, instruments, or internal or external fixation, or by combining both internal and external fixation. The means depending upon circumstances, and the choice of the operator. When this is accomplished pain is relieved, possible blood clots and detached fragments of bone removed, wounded tissues repaired. Excessive callus formation is prevented, associated dislocations if they exist can readily be reduced, shortening deformity prevented, and as union is usual by first intention the period of disability and consequent loss of time is very much shortened. The most serious objection brought forward against this treatment is the possibility of infection and a scar. The former now-a-days with due care is rather remote, and when we consider the objections pro and con a skin scar does not seem a serious objection. The selection of time to operate depends upon circumstances. If the fracture is one that will probably not yield good results promptly by the conservative method and if shock does not exist, operate at once. If shock does exist, operate when that condition is overcome.

I shall not consume your time in discussing the technique of the operations for the repair with and without internal fixation, as the operations are described fully in various papers that have come out recently. Practically the only difference of opinion that exists is in the kind of material used in the operation for internal fixation. Some claim absorbable sutures give the best results, others that non-absorbable materials give the best results. In the cases I have treated silver wire gave me better results than the No. 4 cat-gut which is so highly recommended by several writers on the subject, because I have found that in some cases the cat-gut stretched. However, in this class of cases whatever kind of material is used, prompt closure of the wound without drainage is advisable, then splints or plaster of Paris applied. In cases where plaster of Paris is applied a window should be cut in the plaster of Paris immediately over the wound so that the wound can be readily inspected. In the treatment of compound fractures each author whose article I have seen insists upon the use of drainage. External fixation by splints or plaster of Paris is in all classes of cases demanded.

Malingerers and Malingering.*

By George R. White, M. D., Savannah, Ga.

There are two problems before Railroad Surgeons. One is the care and treatment of the injured, and the other is the prevention of incursions into the exchequer of the company by unscrupulous individuals with fraudulent claims for damages. The first of these problems, which belongs to the proper sphere of the surgeon, has been worked out most satisfactorily as far as conditions will allow, so that crushed and broken limbs are not amputated except as a last resort; ruptured internal organs are restored to good functional utility; severe brain injuries are relieved by early trephining; and with our present knowledge and facilities, accident cases are handled in a manner that would have been considered marvellous by the surgeons of the last generation. When we turn to the other problem quite a different condition of affairs is found. We see a constantly increasing number of claims against the railroad companies; some just, some greatly exaggerated, and some purely fraudulent; and there has grown up a class of criminals and grafters, some living within great boldness and originality, while the forces that should hold them in check are largely in abeyance.

The financial interests involved in railroad claims is something stupendous. The Seaboard which is one of our medium-sized systems, running through a section of country where this peculiar kind of graft does

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga., July, 1906.

not flourish, especially luxuriantly, pays out annually for personal injuries in the neighborhood of a quarter of a million dollars, while the amount of the claims are many times larger than this. The Southern Railroad covering in part the same territory as the Seaboard, pays out about a million and a half annually; but these figures are insignificant when compared with the amounts at stake in the more populous sections. Prentice estimates that in Chicago alone in a single year the transportation companies had suits against them for about sixty million of dollars. There is no accurate estimate of the amount thus involved for the whole country, but the sum would rival our largest industries. How much of these claims are just and how much fraudulent can never be known. Ford estimates that in England 40 per cent. of claims against the railroad are fraudulent. Financial interests of this magnitude ought to attract the attention of well trained men in every locality, but instead, the subject receives comparatively little attention. The literature is meagre and the best work in the study of malingering has been done by the military surgeons, instead of railroad surgeons.

The subject is a large one and the most that can be done in a short paper is to suggest a classification with a few principles for the detection of malingerers, and append a bibliography for those who care to pursue the subject, and would especially commend an article in the American Journal of Medical Sciences of 1864, by Wm. Keen, Weir Mitchell and Moorehouse, surgeons in the Federal Army, who made a study of the methods of the "bounty jumpers," the prototype of the modern Railway Malingerers.

Classification:

Fraud in accident cases may be classified in these divisions.

1st. Substitution of other injuries or persons.

2nd. Exaggeration of injuries.

3rd. Pure malingering.

Substitution is undoubtedly more generally practiced than simulation. It is easier to substitute an old injury or find a confederate in the person of an injured man than create and maintain a fictitious disease. The subject is a broad one, covering almost the entire field of pathology, since every abnormal condition existing after an accident is apt to be charged against the accident.

Substitution may be classified as follows:

1st. Substituting a disease or injury that existed before the accident for the real injuries.

2nd. Making a fictitious accident to fit some existing injury.

3rd. Having a confederate with an injury to tell a plausible story and be examined by the surgeon in place of the one receiving a real or fictitious accident.

In detecting these cases there is much that does not come within the sphere of the surgeon who can only give an opinion in regard to the conditions present, and it is left with others to determine whether the injury existed before the accident or whether the surgeon is really examining the right man. Two cases of substitution have recently come under my observation. One had received a substantial sum from a railroad upon certificate from the surgeon of the road (not a Seaboard surgeon) on account of a traumatic hernia. With part of his money he decided to have an operation and I found upon opening the sac that he had a congenital hernia. He afterwards admitted that he had noticed something down there ever since he was a boy. The other case was a man with a deformity following Pott's fracture and a plausible story about an accident on the Atlantic Coast Line. I gave him a certificate as to the nature and permancy of his injury, which he attempted to use in getting damages from the road, but Dr. Clay, the surgeon of the road, had previously examined him and informed me that the injury had been received in Mexico several years previously.

The best that can be done without outside aid is to make sure that the injury corresponds with what would be expected from an accident at that time. The acute symptoms of contusion and abrasions are present if the accident is recent and the discoloration of an ecchymosis must be black and not yellow, if the accident is seen during the first two or three days. Moreover, one should never accept a common constitutional disease as having a traumatic origin. The majority of people are not physically perfect, and if they are examined for the first time after an accident there is no reason for assigning every pathological condition found to the trauma, and traumatic nephritis, traumatic diabetes, and a score of similar diseases have in all probability no existence, and are terms used to extort money from the company. One should be especially careful to accurately diagnose any chronic nervous affection, otherwise a patient with incipient locomotor ataxia or some similar disease might pass off as a case of traumatic neurosis.

There are several tricksters against whom one should be always on his guard. The traumatic abortion cases in which a well planned accident, along with other measures, relieves a woman of an offending foetus, covers up the criminality of the act, and wins for her the sympathy of her friends

and a substantial financial consideration from the company; the ununited fracture man who prevents a broken bone from uniting and by a series of fictitious accidents collects damages from one company after another; the depressed fracture of the skull man who makes use of a harmless congenital depression of the skull to develop all kinds of nervous symptoms; and the dislocation man who has the power of producing a subluxation of a joint and allowing it to be pulled back with a snap at the proper time.

By bruising the skin a little before the accident and acting the part well it is almost impossible to detect the fraud in this case, and money once gained by one of these tricks is more seductive than opium in drawing a man from a legitimate pursuit to prey upon the community.

My own thumb can be partially dislocated at will, as you see, and I am not sure but that it might be made a source of considerable revenue if properly worked.

The exaggeration of symptoms is an important part of malingering and the problems presented are extremely complex. After a severe mental or physical shock from railroad wreck, earthquake, or any severe accident, even though no anatomical lesion is produced, there develops certain severe neurosies not under the control of the will which usually take the form of neurasthenia or hysteria. These cases are made worse by introspection and brooding over the accident, and may go from bad to worse until they become incurable invalids. In these cases symptoms which at first are purely imaginary come after a time to have a real existence, which makes it impossible to say how much of the trouble is real and how much is imaginary. It is not the province of this paper to discuss the traumatic neurosis, though they enter largely into many accidents and are very intimately associated with the subject of malingering. A knowledge of this subject is of utmost importance for one doing accident work, and for those caring to pursue it I commend Baily's book on Diseases of the Nervous System resulting from Accident and Injuries.

In pure malingering we have no lesion or neurosis, but the patient deliberately attempts to deceive with hopes of gain from the railroad company. The number engaged in this in the larger cities is considerable, comprising both men and women who often find the transportation companies an easy prey, as they prefer to compromise a suit of damages for some grave injury for a few hundred dollars rather than have it go into the court, even though they suspect the case fraudulent.

The tricks of these rascals are numerous and often very ingenious. Some are more or less familiar with diseases from being about hospitals, and some others are thoroughly coached by somebody familiar with the subject. The conditions simulated are infinite, from simple pain to general paralysis with incontinence of urine and faeces. Most, however, try to simulate some disease of the nervous system, and to deal successfully with these people requires considerable knowledge of neurology. In order to be all successful they have to simulate some disease or deformity and the symptoms must be co-related and in conformity with the alleged lesion; moreover, the symptoms must be accurately mimicked and constant, which requires considerable skill. The malingerer, however, has considerable financial gain at stake and plenty of time to practice his part, while the examiner is often unsuspicious and has nothing to gain for his trouble if he detects the fraud.

The physician who goes about these cases carefully has considerable advantage. He is on his own grounds with plenty of resources at hand, while the patient is in new territory with only limited knowledge of the disease he is attempting to simulate. The doctor is apt to be on his guard from the start from the tendency of the patient to over-act his part, or, as Barthelow expresses it, 'there is an indescribable something about a malingerer which leads one to suspect him for no other reason than a woman's reason.' The first thing necessary is an accurate diagnosis with symptoms all co-related to the injury. If he presents a hodge-podge of conflicting and contradictory symptoms, he proves himself a malingerer from the start. Then he must keep in mind the various symptoms and not forget one while his attention is drawn to something else, and the symptoms must be constant and not changing about at each examination. He seldom adheres to this rule, as they are always looking for points to make their case stronger and will follow one's suggestions to an absurd degree. Finally, the physician has at his disposal instruments and auxiliaries that will clear up most doubtful cases. The tape measure will show whether there is atrophy or deformity; the galvanic and faoradic current will demonstrate the existence of paralysis; the X-Ray will show the presence or absence of many alleged internal derangements; the reflexes give us much information regarding the nervous system, and a general anaesthetic will dispel all doubt about a large number of cases. According to Keen, Mitchell and Moorehouse, all of the following simulated conditions may be detected by a general anaesthetic: Ophonia,

blindness, deafness, dumbness, stricture, contraction, anchylosis, paralysis, rheumatism and epilepsy.

In taking up some of the subjects in detail we find alleged simple pain in the back the most difficult to detect, especially so since real pain in the back often follows an accident. In real and prolonged suffering there is an expression about the face and a stiffness about the part that can not well be imitated. In detecting these cases the most reliance, however, must be placed upon having them watched while off their guard.

Pain associated with tenderness is more easily detected. Its location should be accurately marked out, bearing in mind the distribution of the sensory nerves and underlying organs. To determine whether the sensitive area remains constant it may be necessary to have the subject blind-folded before marking out the sensitive area and see if it remains the same at successive examinations. Real tenderness remains during sleep, and pressure over the tender spot if the patient be caught napping will disclose the nature of the trouble. The most important diagnostic point is, however, that the patient is apt to forget about the tender places when his attention is attracted to something else.

One of my cases who complained of great tenderness about the hip allowed me to hold almost her entire weight with my hands pressing against the tender area, when her attention was attracted to some manipulations about the feet.

Mannkopff suggests as a test for tenderness that one make pressure over the tender area and if the pain produced is real the pulse will become rapid. The test is severe and not entirely reliable.

Contractions and anchyloses have a way of relaxing during sleep and a few whiffs of chloroform will reveal the fraud at once.

Simulated paralyses do not usually conform to any known type. An entire limb is apt to be fictitiously paralyzed with sensation, reaction and reflexes undisturbed which would be a pathological impossibility; moreover, it is difficult to keep a limb in complete relaxation when lifted and up by distracting the patient's attention the support may be taken away and the limb left suspended for one fatal moment.

Lameness must be constant and give a gait corresponding to the lesion. One of my patients got into difficulty by claiming an injury to the hip and going about with a hemiplegic gait. DaCosta has pointed out that in feigned lameness the cane or crutch is apt to be brought down after the lame foot while in true lameness the reverse is true.

Aphonia gets very tiresome, so that the subject is apt to forget himself and talk, or a little chloroform will promptly restore the voice. Last week a case was cured by Dr. Lattimore by application of a few sparks from a big electric machine.

Diabetes, nethritis, diarrhœa, and blood from various organs are simulated by a system of substitution and can be detected by watching the patient, or a microscopic examination in the case of blood. This kind of malingering is not uncommon. In one case coming under my observation recently the patient showed a quantity of bloody urine which he claimed to have passed immediately after an accident, though a microscopic examination of the next specimen failed to show a single corpuscle.

A fairly good hemorrhoid may be made by inserting a piece of chicken intestine into the rectum.

Incontinence of fæces may be detected by testing the tonicity of the sphincter by the finger.

Incontinence of urine gives a peculiar odor and excoriation of the parts. If the meatus is dried with absorbent cotton and becomes moist again with urine without any muscular effort the case is probably one of true retention, but if the meatus remains dry it is spurious.

Oedema of the leg may be produced by a tourniquet or by constant pressure over the saphenous opening and the leg caused to increase an inch or more in diameter. A case of this kind I have reasons for believing once deceived me and got a discharge from the army on my certificate. A plaster cast would, of course, relieve the oedema within twenty-four hours. Deafness is detected by observing the subject act upon some information which he has heard. If it is in one ear only he can be made to listen through a stethoscope with long tubes, either of which can be stopped up at will, and tests made until he becomes confused.

Blindness in both eyes can hardly be simulated. And if one-sided blindness be feigned the eye specialists easily get the most skillful malingerer confused by a system of tests.

Insanity presents some difficulty, but in general the patient will over-act his part and instead of keeping up a constant activity will stop and think of how to be impressive and watch the audience to see what effect his actions have.

Putton's case of feigned insanity will well repay reading. His patient after an accident affecting the head would not talk, acted idiotically. In spite of the assurance of the medical witnesses that the symptoms corresponded to no known lesion and a real disease of that nature was an impossibility, the jury gave him a verdict of $30,000, and

it was only through a lawyer who knew of the fraud and refused to take the case that he was discovered.

Feigned epilepsy is a common fraud, but true epilepsy gives some objective symptoms that cannot be simulated; the pupils are widely dilated after the chronic spasms are over and sensibility is gone, and if an anaesthetic is given at this stage, the coma is deepened without any period of excitement. In feigned epilepsy the usual excitement comes on. Moreover, the malingerer is ready to have a fit at any time when he can be observed and can rarely mimic the convulsions accurately. One case I was able to detect a malingerer by observing him follow several absurd suggestions like extending the thumbs and crossing the feet during an attack.

These are a few of the methods of malingerers. I present them with the hope of getting a full discussion of the subject from the members present, all of whom have had more or less experience with cases of this kind.

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The Railway Surgeon, Feb. 8, 1896.

The Capable Railway Surgeon and his Responsibilities.*

By K. M. Ferguson, M. D., Southern Pines, N. C.

This Association of Railway Surgeons is in its infancy, and it may be profitable to us in a measure, as well as to the railway and the victim of railway accidents, to consider briefly some of the requirements of fitness for a successful railway surgeon. The consideration of this subject, at least, implies that we are willing to set our faces in the direction of progress. The railroad takes its local surgeons naturally and necessarily from the various communities traversed by the road.

Railway officials ordinarily know their business sufficiently well to be absolutely independent of the opinions and suggestions of others, and in the matter of a rate bill can hold their hands with the most massive intellects in American politics, but, at the same time, may not know as much about the characteristics in general of members of the medical profession as one of us. It is a matter of common knowledge that we all have some mental or moral characteristics, and in accordance with our dominant characteristics, we are suited or unsuited for particular lines of our professional work. When we have been in the practice of medicine for a good many years we are, by force of circumstances, brought into contact with a variety of personalities, who belong to our own profession, and so apparent is this fact that the conclusion is irresistible that we are not all the subjects of the same identical controlling force. There is no denying the fact that we have in our day a number of different types of medical men; some are successful in the broadest meaning of the term that can apply to our profession, while in the actual lives and experiences of other members of the profession this scale is run down to the point of no success at all. Dr. Oliver Wendell Holmes said that the prevalence of misfit between men and their professions reminded him of a board containing a number of round holes into which square pins had been driven. If we are a square pin in a round hole we naturally map out for ourselves a line of procedure peculiar to our own personality, hoping to get there by some kind of a pull; of the many there are political pulls, social pulls, commercial pulls, and deceptive pulls, the latter is the great pull of all the pulls.

Dr. Osler says that politics has been the undoing of many good country doctors, but every good citizen, whether a man of medicine or not, has to bear his proportional re-

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga,, July, 1906.

sponsibility in the decision of public questions, and a physician is certainly not out of the line of duty and honorable conduct when he lends his force to that which tends toward the moral, social and commercial uplift of his community, but the doctor possessing in no enviable measure neither ability nor merit, and is all things to all men, a standing candidate for all positions of preferment in sight, ready to subvert any public trust for the furtherance of his own ends, misunderstands the true mission of his profession.

The social pull: this can only come the way of the individual who possesses, in a pleasing measure, those social attributes, which lends magnetism to the degree that tends to maintain or elevate the standard of social life in the community, but to be overestimated professionally on account of a high and worthy social position, is a sandy foundation after all for a medical man, and will sooner or later bring the painful consciousness that he did not measure up to the professional estimate which his social position had won for him.

This is a commercial age, it has brought its benedictions and its curses; doctors as a rule are not any more immaculate than other good people, and some of them have possibly been infected a little with the commercial taint of our times. It is sometimes true of physicians that they are neglectful of their financial interest, and in the matter of booking and collection of bills pattern after the good-hearted Scotchman, Dr. William McClure. To indulge in this custom in our day to a very decided extent is wrong to the doctor himself, and injustice to his neighbor physician, as well as to his clientele, for if we are to keep pace with the progress of our science, and give to those who employ us the most effective service, it is essential that our business methods be such as usually obtain among the average successful, fair-minded, and ethical physicians, but the doctor who is controlled above all else by the one motive to get money, and still more money out of his profession, is one whose measures of professional success is resting on successful business methods, rather than professional merit, and this form of success has been ruinous and disastrous to the scientiffc side of many a physicien's life, for when absorbed with his motive, he has no time for study and reflection and development along professional lines.

The deceptive pull: this is rather an elastic term, but among those traveling this route we find the alarmist, who takes undue credit to himself for curing all manner of formidable disease which never existed, and when in charge of a case where the disease is a veritable reality it is invariably the severest form of whatever particular disease it may be that ever was known, that the patient is at the point of death, and had he not already done this and that in the very nick of time all would now be over. We have among this class the all-round specialist, or the specialist of the kaleidoscopic brand; he changes as often as he meets new cases; he is always a specialist in that particular disease from which the patient happens to suffer. This is such a broad field that these kind of specialists rarely become efficient in but one particular, and that is by ardent devotion they commit to memory the fee bill.

The busy pull: I recall the instance of the young doctor whose father was a minister; the doctor attended his father's church every Sunday, after an understanding with the office boy to come and call him out of the church in the middle of the service; the minister would then diverge from the line of service long enough to offer a short prayer for the victim of the disease whom the doctor had been called to attend. This is an extreme case, but we all recall instances of doctors who are always busy, so busy eternally attending the sick that they never have a minute to spare to learn how to do it better.

These criticisms are indulged in only with the spirit and desire to bring out the type of the physician whose dominant characteristics commend him as a desirable acquisition to this association.

Paul, in writing to the Corinthians, gave this injunction, "Let a man examine himself;" this principle has withstood the test of time in theology, and will work as well in medicine. The physician who is honest enough to submit himself occasionally to a thorough self-inspection, is in touch with the surest method of keeping sound, and if we are continuously honest with ourselves, we will not bring harm to those who trust us with their interest. There is, probably, no department of medicine that is called on in greater emergencies than the railway surgeon, and there is no department of surgery which calls for a clearer conception, a quicker decision and a steadier hand than that of impromptu railway surgery. The duties of the railway surgeon, however, are not confined entirely to either actual surgery or riding on a pass; there are various forms of service which he may render that tend to the protection of health and human life. Every railway passenger train can not carry a railway surgeon, but railway surgeons, by proper effort and organization, can get into the hands of every train crew certain principles of first dressing which will have a favorable influence on the subsequent history of every case of railway injury. The

benefits of antisepsis in the surgical world is now so irrevocably established that it admits of no argument. The saving grace of common sense, coupled with a high degree of conservatism, are elements more desirable in a railway surgeon than a knowledge of the methods of catheterizing the ureters.

The science of medicine is raining its blessings upon humankind in our day, through the principles of preventive medicine as well as that of treating injuries and diseases, and when we remember the great number of people annually carried by the railroads in our country, as well as the great diversity in humankind which they represent, the sick and the healthy, the clean and the filthy, the rich and the poor, all classes brought together by this unalterable force of circumstances, the question of car sanitation naturally suggests itself. An evidence of popular interest in sanitary work is shown by the formation in very recent years of many State and national organizations for the prevention and spread of infectious diseases. The decline in the death rate from tuberculosis in many countries in recent years may undoubtedly be accounted for, in part at least, by the increase in popular interest in the subject, and the consequent spread of popular information relative thereto. The question of car sanitation, as it relates to the public health, is a very vital one, and if the railway surgeon can be instrumental in encouraging railway companies to provide cars with proper ventilation and heat, and proper methods of disinfecting coaches and stations, and providing sleeping car furnishings, which reduce to the minimum the chances of infection, as well as to encourage laws against the careless and dirty habit of expectorating on floors and walls, he will have done a commendable public service.

There has been a custom in vogue, which still obtains, so far as I know, in some places at least, of the railway companies paying locomotive engineers by the number of miles they run, rather than by the month.

This is a great incentive to an ambitious engineer to swell his annual earning capacity, but the physical endurance of all men has its limitations; we are all provided with more or less reserve force to meet contingencies, but not to make merchandise of, and next to actual inefficiency on the part of railway employees, this custom carries the possibilities of greatest destruction to life and property.

The physician in the community in which he lives, and in any other relation he may bear to the public as a medical man, is expected, first of all, to be zealous in the cause of the public health, and in the protection of human life, and this association can attain to its highest usefulness only through the combined action of a high purpose and wise government on the part of the railway, and a sincere effort on our part as medical men to accomplish along all lines the greatest possible good.

Some New Methods in Skin Grafting.*

By John Egerton Cannaday, M. D., Surgeon in Charge Sheltering Arms Hospital, Hansford, W. Va.

I have selected my subject from the domain of minor surgery for the reason that it should appeal to the general practitioner who will not infrequently have occasion to do such work. I have several times had occasion to treat old ulcerated surfaces in which epidermization had for months made absolutely no advance, and yet the physician in charge had never made an attempt at transplantation. In many forms of minor surgical procedure some degree of satisfaction in results is often obtainable even when the methods are careless. In the particular field of this subject, however, a technique absolutely careful in all the minutiae of its application is necessary to the achievement or success.

The need for epithelial grafting arises from several causes, among which are: To cover defects in skin integrity caused by the excision of malignant growths, deep burns, lacerated wounds in which sufficient flaps for covering cannot be secured, the sloughing of flaps, gangrene due to frost bite and other causes, the correction of deformities, varicose and other ulcers, destructive skin lesions as lupus, blastomycosis, etc. We know that such bared areas can cover themselves only by the reproduction of epithelium around the edges; that after a varying length of time, dependent on the individual case, this border line epithelium becomes exhausted and ceases further to divide and reproduce itself. It is then we must assist nature. Indeed, it is not well to wait until that stage arrives.

In the choice of material, if the area to be grafted is large, it is usually most convenient to get the grafts from the individual needing them, unless some self-sacrificing individual is at hand to donate the necessary integument. One can often get suitable material from amputations and other operative procedures without robbing the patient of his own integument.

Inasmuch as molecular life is maintained for some hours after somatic death the skin of the white man when grafted on the negro will, in the course of time, become like that of its host, and vice versa. Frogs,

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chickens, pigs and other animals have contributed to the covering of man with a very good grace. On one occasion I grafted the skin of a water lizard, commonly known as a "water dog," on to the foot of an Italian with a fair degree of success. The skin of the arm or thigh is of a suitable character for this work, and from its situation is quite accessible. When the defect is on a limb it is well usually to take the grafts from a nearby location.

Formerly all skin defects were covered by plastic methods, the sliding and transference of flaps. Later it was found by Thiersch that a new vascular supply had been formed in grafts eighteen hours old.

Wolf, Hirschberg and Krause devised methods by which the entire thickness of the skin is transferred. Reverdin planted infinite small islands of epithelium on raw surfaces.

Thiersch avoided the extremes of both methods and used strips of considerable size and length, but involving only a part of the thickness of the skin.

These grafts not only take well, but the injury caused by their removal heals readily owing to the deeper layers of the skin being left behind.

Czerny and Wolfler originated the successful transplantation of mucous membrane. The former devoting his attention to the conjunctiva and the latter doing work on mucous membranes in general. The transplantation of mucous membranes is more difficult than skin and necessitates a more refined technique.

Thiersch taught that the clean healthy granulations should be curetted, the oozing of blood controlled by sponge pressure and the grafts applied.

Isnardi applied grafts directly to the granulations without disturbing or removing them and holds them in place by thin gauze tightly stretched over the grafts. He attempts by frequent dressings alternately dry and wet to secure rosy red, hard healthy granulations. To prevent too great a tendency to bleeding he touches the granulations with a thermo-cautery if necessary.

Bruning and Sneve use no retentive dressing, but expose the grafted surface to the open air. This method has much, especially in the way of simplicity, to commend it, and can be used in many cases.

Buller recommends the use of narrow strips of isinglass plaster to securely retain the grafts in place.

Wilcox cleanses infected areas by the use of peroxide and green soap, followed by the application of a one per cent. formaldehyd solution which is allowed to remain for several hours. He curettes away the granulations, controls oozing by the direct application of the Esmarch bandage over the bleeding surface and then applies his grafts.

Grafting is often done for the restoration of the eye lids for cosmetic and functional purposes and presents quite a number of difficulties. The operative field is movable and uneven. The graft on the upper lid must be light so as not to press too heavily on the ball or to interfere with the mobility of the lid. The elastic tissue of the eye lids constitutes a surface that will cause a graft when placed thereon to shrink. Dodd who has investigated this line of work thoroughly uses Wolfe's grafts where the entire thickness of the lid is destroyed. In other cases Thiersch's. He secures immobility in the lower lid by suturing it to the upper, and in case the upper lid is alone to be treated stitches it to adhesive strips attached to the cheek.

Campbell, of London, finds that by the use of grafts to fill in skin defects caused by the removal of keloid lupus and sarcoma, rather than by suture approximation, the tendency to epithelial recurrence is considerably lessened. While for this minor operative procedure an anaesthetic is not always necessary yet it is in most cases desirable.

Among the various means used to secure a clean, healthy granulating surface a bi-daily dressing of gauze wet with normal saline solution, or a weak solution of chloral hydrate (grs. ii to the oz. of water) covered with oil silk or other impervious material is probably as effective as anything.

In my own practice I use the Thiersch or shaving graft. After securing a clean, healthy granulating site I have the part from which the flaps are to be taken carefully cleansed in the usual manner preliminary to operative work. I wash the granulations with hot saline solution, evenly freshen the surface by a gentle rubbing with a new sterile Tampico fibre nail brush which will freshen the granulations without destroying them. I long ago abandoned the curette as a very unsatisfactory instrument for this kind of work. It tears off the granulations entire, leaves an irregular surface which has not nearly so good vascular supply as the granular surface.

Lauenstein has recently suggested rubbing with a gauze pad to freshen the surface. I tried his method in several cases recently. I found it quite effective where the granulations were tender, but in one case where the granulations were firm and hard I had to return to the use of the nail brush. A few moments pressure with a sponge wet with hot saline solution to check the oozing of blood and the part is ready for the reception of the grafts. The razor should be sharp. An instrument having a

metal handle that can be boiled is preferable, but the ordinary razor carefully washed with soap and hot water, then with alcohol will suffice. The part from which the grafts are to be taken is exposed, the skin made tense and bulging by grasping with the hand or by the use of sharp retractors. Grafts half the thickness of the skin, half an inch wide and one and one-half inches long, are suitable for most cases. If the skin is held properly these can easily be sliced off by sawing movements of the razor. As each graft is severed turn it over the left index finger, skin side next to the finger, carry graft direct to the denuded site, press it down on the surface with the finger, with a small probe smooth and straighten it out as you wish it to remain and repeat the process until the surface to be grafted is covered. By transferring each skin strip directly you will be able to cut them the proper size, shape and number, the proportion of takes will be larger. I have always had the surface from which the grafts are taken dry and transferred them without the intervention of any saline or other solution, which only serves the purpose of rendering a delicate piece of work more difficult and of diminishing the chances of success.

Cover the grafted site with thin dental rubber dam, one piece if the area is small, or strips, criss-crossed for drainage, if the area is large.

Some recommend cargile membrane, some green protective and other more or less impervious substances. I place a small gauze pad over this, securely anchor it from all sides with narrow strips of zinc oxide adhesive to prevent displacement of the grafts, apply externally a cotton, gauze and bandage dressing. In many cases it will be well to encase the part with plaster of Paris to secure immobility. A slight amount of pressure will keep the grafts in apposition with the part, will prevent serum from collecting between graft and wound and separating them, and will control bleeding; on the other hand too much pressure will destroy every vestige of life in the Thiersch flaps and render the pains of the operator for naught.

Formerly we were taught to keep the dressings wet with the physiologic saline solution. It was so valuable for some things it was supposed to be good for everything. I discontinued it as being totally devoid of value, and began the use of sterile vaseline or petrolatum as a lubricant to prevent the dressing from becoming adherent.

Parmenter suggested the use of sterilized oil instead of the mussy saline dressing. For some time I have used the plain dry dressing as described above without any cause for regret. It possesses the advantages of simplicity and neatness, it renders the after care less complicated and can easily be removed by the free use of peroxide of hydrogen and sterile water without disturbing the underlying epithelium in the least. I practically never remove the dressing until a week has elapsed, and the wound usually requires but little care after that.

I have practiced the method described in twenty-three cases of skin grafting without a failure. I have used it chiefly in the repair of defects caused by burns and by sloughs from lacerated and contused wounds.

In conclusion I would emphasize the value of the direct transferrence of grafts. The use of the nail brush instead of the curette, and the simplicity and effectiveness of the dry dressing moored in place by adhesive strips.

A Simple, Easy and Efficient Method of Anchoring a Movable Kidney.

By G. Paul LaRoque, M. D., Richmond, Va., Lecturer and Bedside Instructor in Surgery, University College of Medicine.

The indications for the performance of this operation have long ago been elucidated and to the modern doctor skilled in the interpretation of symptoms caused by injurious degrees of renal mobility, these indications are clear and positive. The hesitation, so often manifested by patients and shared by the family physician and in no small degree by many-surgeons, to advise fixation of a kidney injuriously mobile, has been incident to the fact that too often there has been no relief of the symptoms in friends and patients previously operated upon. This failure need not exist when the operation is properly performed. The problem is no longer how to prevent recurrence of excessive mobility. Indeed one caution is to prevent too rigid fixation. The real problem however, is to properly fix the organ in its *normal location* with its upper pole in proper relation to the eleventh intercostal space, twelfth rib and spinal column, and *not so low nor so far from the median line* as to cause tension on the renal vessels and nerve plexus. This needs no empasis to those of us who constantly hear the complaint from those previously operated upon that their symptoms are not relieved and find upon examination the kidney firmly fixed in a position too low and too far removed from the median line.

The old method of delivering the organ upon the back in order to pass the fixation sutures is entirely unnecessary, even if the surgeon should prefer to remove the capsule. Decapsulation is never necessary in order to secure fixation, and the writer has often

wondered why any surgeon should perform this as a part of nephropexy. There are moreover, definite reasons why the organ should not be delivered upon the back into the cold world, from its warm cozy corner, behind the peritoneum and colon and on the right side, the liver, where it is kept snugly and addionally protected by a blanket made of its fatty capsule. The additional shock incident to chilling and to traction on the renal plexus of sympathetic nerves, while in no case not inconsiderable, is in some cases of real consequence.

From the hilum of the kidney to the skin overlying the erector spinae muscle, is generally at least three inches; and from the median line of the vertebral colum to the renal hilum, the distance rarely exceeds two to shree inches, and even this is greater than the length of the shorter of the two renal vessels. Indeed the shortness of the right renal vein is sometimes the cause of embarrassment to the operator when performing right nephrectomy and the proximity of this organ to the vena cava is universally respected. The renal vessels must therefore be stretched to at least double their lengths to make delivery of the organ a physical possibility, and when it is remembered that they are joined to their fixed parent trunks (the aorta and the vena cava) at a right angle, it is easily seen that they must be actually stretched. Dimunition of calibre in the renal vessels is therefore proportionate to the amount of stretching thus caused. The effect of constriction is manifestly more marked in the case of the vein (since this structure is possessed of thinner coats than those of the artery and is without the counteracting effect of pulsation) and marked passive engorgement is the result. If, during the process of delivery, the organ should be even slightly twisted on its pedicle (the vessels and ureter), the injurious effect is obviously more marked. Gangrene of the kidney has occurred.

In at least one case in which the left kidney was thus necessarily pulled out for the purpose of removing a calculus, the pancreas was unexpectedly found adherent to the anterior surface of the kidney and was consequently injured. In this particular case death followed on the third day after operation, and autopsy showed fat necrosis of the omentum (see article by S. S. Bradford in Medical Record, July 21, 1006). Every one knows that the duodenum is not rarely adherent to the right kidney even when the latter is movable.

In every case the kidney is necessarily contused during the act of delivery, even when the operator is gentle in his manipulations through a large incision. In many cases the organ is thus considerably injured. The minute structure of the kidney is delicate and highly organized; and while in many cases, the organ tolerates positive insults, these will be minimized as much as possible by the conscientious and skillful surgeon.

All of these effects are obviated, and the kidney securely maintained in its normal position by a *single suture placed at the outer convex border of the lower pole.*

The following case illustrates the ease and efficiency of the method of thus performing the operation.

Mrs. H. forty-four years old, for years a victim of recurrent abdominal pain of that type of "indigestion" which the writer chooses to call pseudo-gastric-enteric catarrh (see article entitled Affections Characterized by Gastro Enteric Catarrh in the Charlotte Medical Journal, March 1906) was referred to me for diagnosis, Upon deep inspiration the organ slipped downward past the anterior examining hand and failed to return to its normal location during expiration while the fingers were held above its upper pole. In addition she suffered with uterine fibroids.

I unhesitatingly advised that the kidney be anchored, the uterus be removed and that both operations be performed during the same anaesthesia.

A week later I operated. Under ether anaesthesia, with the patient in the left latero-prone position and on a pillow so placed under the opposite loin as to widen the right ilio-costal space, a three inch incision was made, extending from the twelfth rib vertically downward along the right margin of the erector spinae muscle. The lumbar muscles were separated, not cut, and the ilio-inguinal and ilio-hypogastric nerves were isolated, so as to avoid being cut or caught in the sutures. By means of pressure by an assistant's fist anteriorily, the kidney was held within easy reach. Separation of the peri-renal fat from the lower half of the organ was easily effected for about an inch, so as to expose the true renal capsule. This fat was not stripped entirely away from the kidney and should in no case be removed. By means of a curved needle threaded with No. 3 twenty day chromacized catgut, a single suture was then placed at the lower pole of the kidney through its true capsule and a small portion of the renal cortex according to the method of Brodel as follows: The suture was passed from above, downward for half an inch, then from below, upward, the needle entering a quarter of an inch from its previous point of exit and coming out near the point of entrance. (This method of suture is well illustrated in the 6th edition of White & Martin's text book of Genito-uri-

nary diseases, to which the reader is referred). The capsule of the kidney was then scratched and rubbed with gauze to facilitate the formation of scar tissue to further aid fixation. The two ends of the fixation suture were then passed through the muscles at the *upper part of the posterior edge of the incision* and securely tied. When the assistant's fist was removed, the organ was seen to occupy its normal position and failed to move with inspiration. The writer would emphasize that one sure placed in this manner especially when supplemented by irritation of the capsule and surrounding tissue is amply sufficient to cause firm fixation. The wound was then dried with gauze and closed without drainage. Three sutures of silk worm gut and one of horse hair closed the skin wound completely. The time required was twelve minutes.

The patient was then placed on her back and an easy hysterectomy performed.

A small, plain gauze dressing to each wound was held in place by adhesive plaster, a wad of gauze about the size of an adult fist was placed anteriorly to make moderate pressure over the region of the kidney for twenty-four hours, and both dressings secured by an abdominal binder.

There was no shock, no vomiting; convalescence was uninterrupted and at the end of three weeks the patient was out of bed, and four days later discharged, cured. I may add that at the end of seven days following the operation she was allowed anything she wanted to eat, and in abundance. She is at the present time, (3 months since operation) without a symptom, is eating food which she has not taken in fifteen years, is heavier than she has been during this time and is gaining weight steadily. The lower end of the kidney, operated upon, is barely palpable and does not move.

In conclusion, the writer would summarize the cardinal principles upon which the treatment of movable kidney is based.

(1). Injurious degrees of renal mobility are characterized by recurrent attacks of abdominal pain of the character of ureteral or renal colic, remittent periods of indigestion of the type of pseudo-gastro-enteric catarrh, finally causing true catarrh of the alimentary tube; and upon examination, a kidney which upon deep inspiration moves downward to a sufficient extent to be maintained in this location during expiration, by the examining hand placed anteriorily at its upper pole.

(2). Such a kidney is a menace to its own health and to that of the individual, and should be sutured to the overlying muscles in its normal location. The so-called "palliative treatment" by means of pads, corsets and trusses, together with rest cure, is inefficient, time wasted and may do harm.

(3). The old method of pulling the organ out of its nest, on to the back, for the purpose of placing the suture, is entirely unnecessary, and entails great risk to the integrity of the organ and its anatomically related structures, sometimes resulting disastrously.

(4). The operation as above described, with one properly placed suture at the lower end of the kidney, will maintain the organ in its normal location with its upper pole anterior to the twelfth rib and eleventh inter-costal space, its lower pole just above the level of the umbilicus and its outer convex border even with and not external to the outer border of the erector spinae muscle. Such an operation is efficient and should be attended with no mortality. There is no longer any justification for allowing these patients to suffer the misery and semi-invalidism incident to injurious degrees of renal mobility.

The Future of the Negro, From the Standpoint of the Doctor.*

By John N. Upshur, M. D., Ex-President and Honorary Fellow Rich mond Academy of Medicine and Surgery; ExPresident and Honorary Fellow of the State Medical Society of Virginia, and of the Tri-State Medical Association of the Carolinas and Virginia; Honorary Fellow of the State Medical Society of West Virginia, &c., &c.

The conspicuous problem of the negro, his relation to the white man, and his destiny, has been a theme of unfailing interest since as one of the results of the Civil War of '61-'65 he was made a freeman, and endowed with the rights of the ballot. It is not my purpose in this discussion to deal with statistics; enough of that has been done. The negro in the South is a patent factor of the problem of domestic and political economy. The views of the writer are based upon personal observation of the negro, as a practitioner for nearly forty years. The present conditions and the future destiny of the negro race are dependent upon the persistent environment since freedom was thrust upon them. All of the conditions existent in regard to the negro before the Civil War tended to health and longevity. Due care was taken as to housing, food, and clothes, that the best hygienic conditions should obtain; when ill the best nursing and medical attendance that money could command. The religious side was carefully looked after, and the happy song and laughter of the negro was proverbial.

*Read before the Richmond Academy of Medicine and Surgery, Sept. 11th, 1906.

He had no care and no thought for the morrow, he looked up to his master, and relied on his interested care. The faithful service of the race during the Civil War in the care of the women and children of the South, and the cultivation of the lands for the production of the necessities of life, forms a striking contrast to the thriftlessness of the generations succeeding the Civil War. The unnamed crime was then unknown; what a horrible record has been made in that matter since he became a freeman. The heredity of the negro coming down from his savage ancestors, is to have *always* what he desires, to get it by fair means if possible, if not by brute force; this is the explanation underlying the horrible lust which provokes his attack upon the white woman. From the observation of the writer he is persuaded that the negro is degenerating as a race, *mentally*, *morally*, and *physically*. It is not to be denied that some have been industrious and thrifty, and have accumulated property, but this can not apply to the masses. Nor does it tend to exemption from disease, or prolongation of life, to have the culture and comfort to which a minority have attained. What has the race done at any time or anywhere, apart from the white man. *It is the only race on earth which has no race pride.* The white man has pride in the fact that he is a white man; so with the Mongolian, the Indian, the Chinese,—they wouldn't change with any other race. *Per contra*, the negro is ashamed of the fact that he is a negro, he apes the white man and wishes to be like him. How many of them who have accomplished anything have a large admixture of *white blood* in them. Up to a certain point they learn rapidly, they learn by rote, with wonderful facility, but are not practical in the application of what they learn. The race is essentially emotional and religious, but alas! the religious principle does not seem to take hold and be a practical factor in the government of the life and conduct. This is especially manifest from the animal and lustful side; by heredity the negro is polygomous, and he seems unable to grasp as an influence on his life, the clean moral sense in his sexual relations. The writer could give illustrations that have come under his own observation, did space allow.

The factors influencing the future of the negro race, are,—race suicide, venereal diseases, nervous disease, tuberculosis, and back of these, environment, upon which foundation depends everything.

The negro of today is opposed to bearing children, consequently abortion and infanticide is common among them. Infidelity to the marriage relation and disinclination to have the care and responsibility of children have much to do with this state of things. The children born are deficient in stamina, many of them are rickety, many more tuberculous; others perish as the result of indiscrete and indiscriminate feeding during the early years of life. Examination of figures, I believe, will show that the prepondering mortality is among the young negroes; it is the *seed corn* perishing. The census taken every ten years is not as conspicuous in its evidence as it might be, because it shows the birth rate, but not an accurate comparison of the death rate, because many of the negroes live beyond the decmial period of the census; nevertheless, the mortality is inevitable, and the longevity of the race is growing progressively less. The old negroes are those who had attained adult life at the close of the Civil War, or were born immediately after. Conditions favorable to robustness of constitution, and longevity have been growing progressively less. The question of quarantine with the negro in the matter of contagious disease is a serious problem in every Southern community; in a disease like smallpox, it is easier than any other, because more easily discovered; but diphtheria, scarlet fever—all of the exanthems in fact, and tuberculosis, are a constant menace to themselves, and in a less degree to the rest of the community in which they live, all because the report of the cases of these diseases among them is of necessity of the most imperfect character, and the problem of isolation a difficult one. The tendency to overcrowding, lack of proper hygienic conditions in their homes, failure in the matter of personal cleanliness, all have their influence in the development of disease. Again, when sick nursing is defective or entirely absent, medical attention *now* largely from physicians of their own race, and their poverty often puts it out of their power to procure the medicines and diet necessary for their comfort. To my mind, there is no question of the fact that the stamina of the negro has failed, his resistant power to the depressant effect of serious disease is growing less; when he gets seriously ill he dies. The negro is not temperate,—alcoholism, doping with cocaine and other drugs is growing, and bearing its legitimate fruit, manifesting itself in physical decay and nervous and mental break-down. So recently after the war as 1868, while resident physician in a Freedmen's Bureau Hospital with a capacity of five hundred beds, and an average of three hundred and fifty patients, the writer made from 250 to 300 autopsies, and it was the very rare exception, in not more than two per cent., was the evidence of tuberculosis absent in some

organ of the body, often when not suspected previous to death. This, be it remembered, was only three years after the Civil War, when many of the conditions existing during the days of slavery were still in force in giving strength of constitution and stamina. Ride about the streets of any Southern city, observe how many rickety and deformed negroes will be seen, observe the ashy palor on the faces, and the generally unhealthy look which many of them have. Observe, too, the number of young negroes, males especially, walking about in idleness, neither working nor desiring to work. Contemplate the number of criminals in Southern prisons, and compare the present conditions with those prior to the war. A serious menace to the race is the prevalence of venereal disease; remember the far-reaching influence of gonorrhoea, its effect in producing sterility, or limiting the woman to the bearing of one child, because there is no more potent factor in the production of tubal disease, or septic infection when delivery occurs, the infection of the infant and subsequent blindness. Or on the other hand, syphilis, the infection of the child, consequent still birth, or early death; its influence in the development of serious disease of the various organs of the body, or of the nervous system, and a factor in mental disease. No more conspicuous condition since the war is manifest than nervous diseases. Before the Civil War a crazy negro was almost unknown, *now* in the State of Virginia, no doubt a type of other Southern States, there is an asylum for their especial care, filled to its capacity, a thousand to fifteen hundred patients, with every variety of mental disease, epileptics, paretics, idiots,—and numbers in the jails awaiting room in the asylum. Forty years of freedom and *so called improved* civilization has not diminished the superstition of the negro; he believes as much now in "Cunjur" as he ever did, and not uncommonly it is the starting of mental alienation. Puerperal convulsions are common and difficult labor, whereas before the war the old midwife was amply competent to attend the delivery, and distocia in the negro woman was of the rarest occurrence; death from these causes, including accidental and postpartem hemorrhages, is not uncommon.

A case of pulmonary consumption in the pure blooded negro in the days of slavery was almost unknown, it was only seen in the negroes of mixed blood, white or Indian; an occasional case of scrofula, the so-called "king's evil," as it was better known to them, was sometimes seen, but it was only a blemish and had little or no influence upon the general health or stamina of the negro. Tuberculosis in every form is now the great enemy of the negro race. The proven contagious nature of the disease, the predisposing condition from a nutrition below the standard in the individual makes him an easy prey to the active cause when brought into contact with it. The tendency to overcrowding, unhealthy environment, personal contact. The tendency of migration from the healthy air of the country, to the less wholesome atmosphere of the town. Imperfect nutrition which comes from improper food, stale vegetables, defective meat, because cheaper. *Opposition to bacon and corn-meal*, the common food of the slave days, in addition to abundance of fresh vegetables and fruit. Just think my reader, draw the contrast, what does all this mean in solving the race problem? Many negroes emigrate to the North, allured by larger wages, computing not the serious effect of a colder and more trying climate. Many of them come home to die, or find their graves in their adopted homes.

The picture is pitiable, it is not overdrawn. The best of the race are making a struggle creditable both to their heads and hearts to uplift their race, but it can only retard the end for a fractional part. The handwriting is on the wall, the ever-recurring history of the going under of the inferior race, before the stronger and more dominant white race, is inevitable. Not education or any other factor can withstand the inevitable result, and future generations will, I firmly believe, see the fate of the negro, similar to that of the red man.

210 W. Grace St.

What Has Been Accomplished in the Treatment of Summer Diarrhoea of Children—Some Suggestions.*

By Dr. W. L. Harris, Attending Physician Virginia Beach Infant Sanitarium, and Pediatrist to St. Vincents Hospital, Norfolk, Va.

There has been so much written on the subject of infantile diarrhea within the last few years, I hesitate to attempt to add anything more, but the phase of the subject which I shall briefly consider, I hope may prove of some value to those who are interested in the subject.

The class of diseases we now designate by the term Summer Diarrhea seems to be universal in warm climates, and has probably existed from the earliest times, but not recognized or treated of as a specific disease in this country till the latter part of the 18th Century, when Benj. Rush wrote a very valuable article on the subject. It was then called cholera infantum and embraced all the serious types of diarrhoeal diseases now included under the term sum-

*Read before the Medical Society of Virginia, Oct. 25, 1905, at Norfolk, Va.

mer diarrhoea. These diseases were almost universally known by the term cholera infantum till the latter part of the 19th Century, and the term is still erroneouly used by some, but the majority of physicians use it now only in its proper sense. There have been many attempts at naming and classifying the various types of the diarrhoeal diseases as seen in Summer, but none have proved quite satisfactory, and the term Summer Diarrhoea is now quite generally used, although there are many reasons why it is a misnomer. The reason the term is popular is that although some types of diarrhoea are seen in children during the winter, they are seldom fatal and prevalent except in summer.

There have been various theories as to the cause of these diseases, chief of which have been teething, heat and milk poisoning, but, in the light of etiology and pathalogy of other diseases, in recent years these diseases have been thought to be of bacterial origin. Booker of Baltimore was the first man in this country who did any work of great value towards solving the question of etiolgy. After Shiga's discovery of the bacillus that caused dysentery in Japan, and Flexner's work along the same line in Manila, Flexner took up the subject with reference to establishing this same organism as the cause of the diarrhoea of infancy. Working under a grant of money from the Rockefeller Institute of Medical Research, Dr. Flexner and his varios associates, notably Drs. Duvall and Bassett, have done a great deal towards establishing a causal relation between the bacillus dysentery and the summer diarrheas of children. The new clue as to etiology was greeted with a great deal of interest and it put renewed life into the work in the hopes of being able to find a specific curative serum since we had found a specific cause. Although this subject has been worked upon faithfully by various investigators for the last four years, as yet the results have been disappointing to all and it remains to be seen what can be accomplished along this line.

There are a great many conditions to be overcome before we may expect satisfactory results from a serum. If it could be proven positively that the bacillus dysenteriae was the sole cause of the trouble we might soon expect to get better results from a serum; but, as Dr. Holt says, there are so many conditions to be taken into consideration in the treatment of this disease, the outlook is not as bright as it might otherwise be; so much of the child's trouble may be dependent upon its state of digestion, nutrition &c. If the bacillus dysenteriae alone was the cause, it seems but reasonable to suppose that in the near future we may expect better results from the serum, especially in children previously in good condition taken suddenly ill with the infectious type of the disease.

Laying aside the specific etiology and treatment looked for, let's see what has been accomplished in other ways of treatment. It would undoubtedly be of interest to compare the death rate now with that of former years, but statistics of any value are not obtainable. All the statistics on the subject give only the actual number of deaths, and none of them give percentage of mortality in any given number of cases. I have experienced the greatest difficulty in securing any statistics of value on the subject.

We all know the great majority of cases of diarrhea in summer are simple and mild, and if properly treated will almost invariably recover, but, of course, if allowed to run on and are neglected for any reason, they soon drift into the serious forms of diarrhoae. We also know that there is a certain fair proportion of cases that are serious from the start, and as soon as we see them we know they are ill; there is fever which continues, great prostration, frequent actions, green and full of mucus and perhaps tinged with blood; and in spite of everything we can do, these cases continue ill for a certain variable time, from a few days to few weeks, before there is any sign of improvement. These last cases can readily be put down as infectious, whereas, the first cases were not infectious. In making up statistics it does not give a fair idea of the mortality of summer diarrhoea to combine all these simple cases, from which we have practically no mortality, with these of a serious type from which we all know we have yet a frightful mortality; yet this is just what is done in almost every instance. It gives an incorrect idea of the seriousness of summer diarrhoea. If for example, you treat 300 cases of so-called summer diarrhoea, 200 of these cases are simple and mild and uncomplicated, and, in fact, you could scarcely call the child sick, having only a few loose and perhaps mucous stools, and if properly treated all these cases get well; and then the other 100 cases are of the severe type and your mortality is 30 per cent. It would be giving the wrong impression to say yaur mortality of 300 cases of summer diarrhoea is 10 per cent., yet this is practically what is done right along. Of course every man wants his statistics to show up the best possible, but there should be some definite clinical classification of these diseases in compiling statistics to be of any use to us.

In the Wilson Sanitarium near Baltimore

where 3 or 4 hundred sick children are sent every summer Dr. Knox, physician in charge, writes that his total mortality is about 15 per cent, but that if he eleminated the simple cases from the list, the mortality in the more serious types of the disease is anywhere from 40 to 50 per cent. This corresponds very closely to my experience in the Virginia Beach Infant Sanitarium. Of course it must be taken into consideration that children sent to these institutions are from the poorer classes and many cases are far advanced, and the great mejority of them before they were taken ill were suffering from some form of indigestion and in many cases the children are decidedly marantic.

Dr. Kerley of New York in giving his statistics in 682 cases treated in the out patient department of several institutions, states that only 21 cases died, a mortality of only a little over 3 per cent. This number of cases includes all varieties of the disease, the simple and mild as well as severe. It is safe to say that the majority of these cases must have been simple and mild, which would raise his mortaliry among the severe type to a much higher figure.

In my experience in dispensary work in this line we have very few of the very ill cases brought to the dispensary (probably not one case in 6 or 8 is very sick). I don't know why we see so few of the worst types in the dispensaries; they probably are attended at home by a family physician or city physician, or die before the mothers can make up their minds that they are sick enough to take to a physician, so it seems to me that Dr, Kerley's statistics do not convey to us anything like the real seriousness of summer diarrhoea as it occurs among the poor; certainly not as it occurs in this section.

Statistics from the Boston Floating Hospital are about an average I should say. During the past summer 279 patients were cared for in the permanent wards of the boat, with 90 deaths, 90 cases discharged well, 71 relieved and 28 not relieved. Of the 90 deaths 26 occurred within 48 hours after admission. Of the 28 cases not relieved probably quite a number subsequenly died. Not all of the 279 cases were diarrhoeal cases, but probaly about 80 per cent of them were, so that would give a mortality from this trouble between 28 and 30 per cent.

Dr. Dunn of Boston has given us a very excellent paper on the subject of etiology and classification of a large series—620 consecutive cases of summer diarrhoea as seen in the out patient department in one of the dispensaries. Of the 620 cases he puts down 111 as of the acute infectious class with rapid onset and persistence of fever. One case not classed as infectious died and of the cases classed as infectious nine died, and there was no improvemeut in 17 others. It would be but natural to suppose that the great majority, if not all of these unimproved ones subsequently died, so this would raise the mortality to between 15 and 18 per cent

Of course it is but natural to expect a high mortality among the class of cases spoken of above, but how often do we see children in the best families, strong and well nourished, taken suddenly ill with diarrhoea, and die in spite of all our present medical skill can do for them. When we see so many of these strong and well nourished children take sick and die, we have to confess that our treatment at present is far from what it should be. and is very ineffective, and we naturally stop and ask what progress have we made in therapeutics along this line? Undoubtedly our treatment is far more rational than formally, even if it is not as effective as we think it should be. Some of the fundamental principles of therapeutics we have learued from experience in recent years are of great comfort even when not of decided benefit to our little patients. We have stopped giving so many nauseous drugs, and have learned that so few drugs do any good at all in this disease. We have pretty generally come to the conclusion that it is best for the child if we leave off so many of the drugs that were formerly used in the hope of their antiseptic or astringent action. We now realize that it is not our sole aim to stop or check the diarrhoea, but to sustain the patient in every way possible and assist nature to combat the infection. We have found astringents practically useless in the serious types of the disease, and about the only drug that is generally used is Bismuth in some form. We have fully learned the importance of trying to keep the child's stomach in good condition, and to do all we can to help digestion and promote nutrition till the child is able to overcome the infection. We have learned that persistent feeding and drugging (as formerly practiced) can do great harm, and we have also learned that the problem of selecting a suitable and harmless food is often a very perplexing one. Probably the point of greatest value we have learned in feeding during these acute attacks is to stop all milk at once in the acute cases and not resume it till all acute symptoms have disappeared.

The question of feeding and nutrition in the long continued serious cases is still very unsatisfactory. Probably the best substitute food now generally used is a dextrinized gruel of either rice, barley or wheat.

This is as a rule harmless, it may ferment but it does not putrify and offers a poor culture medium in the intestines, and besides the child can take a large enough quantity of it to satisfy him without doing him any harm. The various broths may help us over an emergency for a while, but we cannot give them in large enough quantity to do much good for fear of increasing the diarrhoea. Beef juice is satisfactory only to a slight degree and we can give it only in small quantities. Albumen water was formerly much used but now not so generally; it decomposes and putrifies and is not digested or absorbed in the intestines. Unquestionably our best results in reducing infant mortality from summer diarrhoea have been accomplished through prophylactic measures and our greatest hope in the future lies along this line. This disease is undoubtedly to a great extent preventable and our knowledge of the bacterial origin of it should widen our field of prophylaxis. The bacillus dysenteriae has not as yet been isolated outside of the intestines or intestinal discharges, but from our present knowledge it is fair to suppose that it does exist outside of the body and that it enters the body through the food, most probably through water or milk, contaminated by water; as the infection lies in the discharges this known source should be carefully guarded, but it should be borne in mind that at all times there seems to be bacteria in the intestines capable of doing great harm if only proper conditions are supplied through indigestion and fermentation and the irritation produced by these. We know that these diseases are most prevalent in the badly fed and poorly nourished and more apt to be fatal in this class of cases, so it is clearly our duty to educate the laity in general and mothers and nurses in particular in the best methods of infant feeding. Of course the ideal feeding is maternal nursing, and this is more and more impressed upon me the more I see of artificial feeding, and we should impress this fact upon mothers and do everything possible to see that the prospective mother is able to nurse her child when it comes and never give up the breast and resort to artificial feeding until we have done everything possible, and proven to ourselves beyond all doubt that the mother cannot nurse the child. Even if she has milk enough to nurse the child only three or four times a day insist on her doing this much and fill in the balance of the feedings with properly modified cow's milk. If the child has to be artificially fed we should convince the mother that this is often a difficult problem, especially for the first few months, and that it is of enough importance to require the aid of a physician.

In giving instructions to mothers or nurses instructions should be explicit in writing and we should enter into every detail, and impress upon them the fact that these instructions should be carried out to the letter and that she should at all times keep in touch with her physician, and that if the child is not doing as well as she thinks it should she should at once notify her physician. The child should always be weighed at birth and the weight recorded. Select a food the child can digest and assimilate. If the child shows signs of indigestion note carefully the condition and see what is wrong and make a change of percentages of ingredients at once. Have the child weighed at regular and stated intervals and see that it gains steadily in weight. If it does not gain steadily in weight it is either not getting enough food or is getting what it cannot properly digest and assimilate. A loss or stand still in weight after the first week demands immediate attention. Don't delay and wait until the digestive tract is impaired, for a slight trouble that is simple now and can easily be corrected may take months to overcome if allowed to run on too long.

Of course fresh, clean milk should be used in feeding infants, but it is not alone clean milk that has reduced and will reduce infant mortality but good care and attention in every sense of the word.

Besides instructing mothers how to feed children properly we should instruct them that at the first approach of hot weather in the spring they should be on the lookout for any intestinal disturbance, and that if the child shows any sign of indigestion dilute the food more and that at the first signs of diarrhoea to stop all milk at once and give a purgative and feed the child on barley or rice water until she can notify her physician, which should be at once, if possible, for there is no type of diarrhoea, it matters not how simple, that is not serious enough to demand prompt attention and treatment in hot weather. If mothers fully realized this fact and could only disabuse their minds of the fact that every diarrhoea in summer was due to the natural and benign cause of teething, we would have fewer of the more serious types of diarrhoea and fewer deaths to record among children every summer. It is indeed strange how this old idea of teething clings to mothers from one generation to another. It is littte less than criminal in many cases the way mothers persist in diagnosing and treating their children in summer, under the delusion that teething is causing all the trouble. During the past summer a mother who had been in great distress over her sick child that had been desperately ill for three weeks said to

me one day "Doctor I still believe it is teething," and again in a few days after this she said "If that other tooth would only come through I think he would get well."

In closing I will venture the statement that, notwithstanding all that has been accomplished in the matter of infant feeding and prevention of summer diarrhoea, if every physician fully realized the importance of what can be done towards preventing this disease, and would only take the trouble in every case that comes under his care to put his knowledge into practice, we could reduce the mortality from this disease at least fifty per cent. within a comparatively few years.

Headache: Cause and Cure.†

By E. W. Carpenter, M. D.

I propose to draw your attention to one of the most frequent conditions the profession as a whole is called on to relieve, and one which I believe is in this enlightened age little understood. The most prominent symptoms of eye strain can be summed up in one word, headache. I prefer to avoid such terms as Migrain, Cephalalgia, Hemicrania, Megrims, etc., for the symptom complex is made up of an infinite variety of symptoms, which have no definite relation to these terms, and because scarcely any two writers understand "Migrain" to mean the same thing; if one should ask any score of physicians the etiology of sick headache, or the organs involved, confusion would result from their answers. If you compare the records of a dozen or more cases of "Migrain" you will find no uniformity of symptoms, in fact, in this condition we have an atypical symptom complex, and it is for this reason that authors fail to agree on the definition, etiology, treatment, etc.; because the seed or cause is of infinite variety and intensity, planted in a variety of soils, and its source or origin, viz: vision is more or less bound up with every physiological function, hence "headache" is the most constant phenomena of "Migrain," because of its cause, defective curvature of the eye, and muscular insufficiency. When the low grades predominate they express themselves in a wear and tear on the general system, while the higher grades or defective vision harm the eye itself.

The nerve specialists look askant, and smile when the oculists insist they can cure the large majority of "headaches," 75 per cent. by proper fitting glasses; they tell us we do not and are not expected to know all about psychoses, neurasthenia, dementia praecox, hysteria, neurotic predisposition, melancholia, nervous break down, pseudo-neurasthenia, etc., ad nauseum.

The stomach man says, atonic dyspepsia, hypochlohydria, hyperchlohydria, hypertrophy of the Pylo ric-sphincter, 20 per cent. of individuals have gastric ulcer, etc.; the Gyneacologist says, reflex ovarian disorder, malposition of uterus, and so on.

In fact, each one has his fling except the "Naval Surgeon," who is yet in embryo. We must say of the oculist, who joins them, that he needs a course in modern refraction, and should only wear some of his maladjusted lenses in order to be promptly convinced.

The first physician to clearly state that "headache" was definitely related to eye-strain, was Dr. G. C. Savage, who in the Medical and Surgical Reporter of 1882 says: "Now we do not know why eye-strain produces in one person headache, in another insomnia, hysteria, epilepsy, nausea, vomiting, vertigo, blepharitis, conjunctivitis, brain fag, the blues, etc., but we do know that when a large majority of these patients are relieved of their eye-strain, their nervous symptoms also disappear."

"In 1889 George M. Gould reported the cure of cases of chorea, severe dyspepsia, cardiac palpitation, sick headache, sexual disorders, etc., due to eye-strain, and in January, 1800, others of similar nature, such as stammering, paralysis, anesthesia, chorea, gastric disorders, aphonia, etc. In August, 1890, he wrote "sick headache, there can be little doubt, is very often, if not generally, due to eyestrain," etc. In 1891, in reporting on 833 cases of headache, this man found 73 cases clearly to be classed as sick headache, and he then said, "Ninety or ninety-five per cent. of cases are due to eyes." He now says 99 per cent.

Dr. George E. de Schweinitz, in an address before the Medical and Chirurgical Faculty of Maryland, April 26, 1900, said: "It is unquestionably true that fully 75 per cent. of ocular disorders depend upon anomalies of the refraction, accommodation and motility of the eyes. Corrections of such faults are followed by the greatest good to the eye and to the general organism in which the strain has been interpreted by symptoms not necessarily suggestive of their origin. When one comes to think about them, these symptoms stretch out into an extraordinary train, but we have ceased to wonder, and as a matter of course investigate, or cause to be investigated, the eyes whenever searching for the etiology of headache of all kinds, vertigo, nausea, pseudo and habit chorea, neurasthenia, and other disease phenomena of similar manifestation. We have learned that many so-

†Read before the South Carolina Medical Association, April, 1906.

called gastric troubles, tachycardia, flatulent and other types of dyspepsia, indigestion, night terrors, especially as they occur in children, may have a like origin, and we have found out that pains strangely and persistently situated in the nape of the neck, between and under the shoulder blades, at the end of the spine and deep in the mastoid may owe their origin to the same cause. These facts are widely, I think I may say universally, known, although curiously enough *many of the most important of them find no place in the most used text books on general medicine* "

I have records of a marked case of hysteria in a girl of 19 years, which promptly disappeared after careful refraction.

Another case in a lady of 30 who suffered with insomnia, who after a few weeks correction of unsymetrical compound Hyperopic Astigmatism sleeps well.

Another in a gentleman of 31 years, who suffered for years with hyperchlohydria and vertigo, who has remained free from attacks after refraction for over two years. These cases illustrate how a cause may be very active, and yet so remote as to escape suspicion.

Permit me to draw your attention to the gross injustice which is being perpetuated on the school children of our Southland. Should we see a child carry a burden we deem too heavy we at once hasten to its assistance and relief. Should we then permit them to carry burdens because they are invisible to the casual observer? These unobserved burdens often do irreparable injury to their delicate organisms. A child's eyes, like the rest of its tissues, are in the formative stage, and only under natural conditions are they capable of doing the work assigned them.

While in the school room our children receive their mental training, but it should not be at the expense of their physical development.

Every teacher should know how to make an approximate test of children's eyes when they are enrolled. This can be done quickly and few of the marked defects will escape an intelligent teacher. If a child's eyes do not come up to the standard a card should be sent their parents, notifying them that their eyes are defective, and if below a certain standard they should not be enrolled until they have consulted a competent medical man.

I lay stress on the school child, under this subject, because it is in the young that we find the vast majority of these symptoms, from over-taxed use of the accommodation, that little ciliary muscle does almost as much work as the heart during working hours; is it any wonder that it should get tired.

After 35 years of age these sufferers begin to improve, because the ciliary muscle, which has been so imposed upon, refuses to do as much work, and one passes into the presbyopic condition.

Instead of spending so much money on elegant school buildings, let us pay more attention to the personal comfort of these children.

If this paper has done no more than to cause some of you to note the following point I am repaid. First, that no child is too young in which to recognize eye-strain; that its radical correction may favorably modify its mental and physical development; no child should begin school until its eyes are known to be capable of doing the work, and legislative enactment should compel this.

Tests for mal-adjustment of eye muscle should be given as much attention as defects in their refractive condition.

The arrest of eye strain is an important step in preventive medicine, because the relation between it and many other diseases are well recognized by the oculist.

The Social Evil.*

By Edgar G. Ballenger, M. D., Lecturer on Genito-Urinary Diseases at the Atlanta School of Medicine, Atlanta, Georgia.

MR. PRESIDENT AND GENTLEMEN:

In complying with the request of the programme committee of your Society to present a paper upon this subject, I do so with many misgivings. So varied are the views that prevail among conscientious workers along this line, and so bitter have been their controversies, that I approach it with considerable timidity, for I realize that it should be handled with much delicacy and perhaps more judgment and discretion than I possess. I will outline, however, plans that seem to me feasible, and if carried out would tend to improve the existing conditions.

History is full of unsuccessful attempts to cope with this evil, and many of them have resulted in producing more harm than good. No effort can succeed that ignores *three fourths of the offenders* and the *causes* that produce prostitution. It would just be as rational to try to stamp out an epidemic of yellow fever by quarantining the women and allowing the men to run at large, as to expect to control the social evil by laws directed only against fallen woman, while man with his excessive sexual activity is totally disregarded.

There is no one factor that has played a more important part in the history of the world than has lust and licentiousness, from

*Read before the Sociological Society, June 26, 1906.

Eve in the Garden of Eden, profligate Nero and the downfall of Rome, Louis the XV, his Du Barry and the French Revolution, down to our present day when an eminent authority claims that the German Empire, in spite of her high civilization, unless she reforms must inevitably follow those who have walked the downward path into the pit before her on account of loose morals in regard to sexual matters. Many other powerful nations today are just as corrupt.

Directly in the wake of sexuality follow mental and physical depravity. Venereal diseases may be taken as an index of the extent of this condition, and are surely its worst results.

Heredity and environment are powerful factors that are constantly at work. Lombrose and Tarnowsky have shown that prostitutes may properly be classed as degenerates. Laws that allow promiscuous marriage of defectives can only expect to reap a harvest of the seed that are sown.

Unfavorable environment tends to degrade the normal and produce criminals of the degenerates. Alcoholism and venereal diseases account for the largest part of degeneracy and both are fostered by the social evil.

Irritative lesions in the urethral canal, prostate gland and the other genital organs, set up by chronic gonorrhoea, cause sexual hyperactivity which makes these patients difficult to control in their sexual hygiene. Thus we see the vicious circle that connects alcoholism, prostitution and venereal diseases.

"The prevention of disease is the keystone of human sympathy and the keynote of human endeavor." The prevention of *innocent* suffering is so thoroughly in accord with the best instincts of man that our most effective results in lessening the social evil will follow attempts for this avowed purpose.

The folly of the public punctilio and indifference concerning this subject can best be combatted by showing citizens the venereal peril of their sons and daughters, with the physical, mental and moral degradation that attend it. Public sentiment is the most powerful of all weapons with which to attack this or any other evil. To gain the influence of this factor we must show that our claims are not all fiction and our plans are not visionary and impracticable. Let us present in a forceful way facts that show:

That there is no greater scourge devastating every nation today than venereal diseases.

That gonorrhoea causes more innocent suffering among women than any other disease, bringing thousands to lives of invalidism and thousands of others to the operating table for major operations.

That it causes from 20 to 25 per cent. of all blindness in children.

That venereal diseases represent a most enormous direct monetary loss to the nation yearly, and a still greater one indirectly through the lessened earning and producing capacity of its victims.

That they contribute large numbers to our insane asylums, hospitals and prisons.

That they are among the important factors producing race suicide.

That they are the direct cause, many times, of self destruction and divorces.

And the public, on account of its prudishness and a sense of false modesty, continues to ignore the subject.

The prostitute, public and clandestine, male and female, is the fountain head of these destructive diseases.

Many men carry gonorrhoea into their families without knowing the consequences. Morrow says there is more of it among virtuous wives than in professional prostitutes. Powerful motives, however, lead to its concealment.

Legal Regulation.—Compulsory examination and treatment of prostitutes can only slightly mitigate this disease, even under the best circumstances; every physician will admit that there are few conditions in medicine that are more difficult to diagnose than a latent gonorrhoea in a woman who will not cooperate, taking douches and urinating just before the examination. In such cases it is practically impossible to make a positive diagnosis. Even at this time if she were perfectly healthy, within a few hours after the issuance of such a *recommendation*, the germs may be implanted and flourish, spreading disease among patrons, who, perhaps, without the false assurance given by the certificate, would have refrained from intercourse. This and many other valid reasons make the legal regulation of prostitution unsatisfactory and even dangerous. Laws to prohibit prostitution entirely simply drive them from their secluded quarters and make of the regular prostitute a clandestine one, who in every respect is more dangerous, for in having her as our neighbor or in boarding houses she is in position to do vastly more harm, by entrapping the weak or unwary, than if left undisturbed in a section of the city where to be seen implies the purpose of one's visit.

In order to reach the main points along which the fight against the social evil must be made, let us consider the various causes of the conditions to be encountered. This brings up many complex social problems, some of recent development, others that have existed from time immemorial.

Education. — Undoubtedly, ignorance, both public and private, is a cause of the indifference concerning this subject. The public does not realize the dangers to the Stater The private individual does not know, in time, the far reaching and sometimes disastrous results that are likely to follow promiscuous intercourse, even when the co-respondent appears to be perfectly clean and healthy.

The educational and sanitary crusade against tuberculosis has brought such excellent results that we should be encouraged in the campaign to lessen the social evil ann social diseases. If the public could be aroused as to its urgent need the most important advance would be made. A law requiring practicing physicians to send in a record, every month, of the number of their patients (without names) having gonorrhoea and syphilis and the various complications and deaths that result therefrom would, at the expiration of a year, show such startling facts, when compared with the epidemics of yellow fever, small pox and other reportable diseases, that even the most skeptical would be forced to the conclusion that our present method of inactivity should be abandoned.

The majority go into illicit sexual life knowing little of its dangers and pitfalls. They do not realize that in gratifying a passing desire they endanger their future health and happiness by a disease that may make it unsafe for them ever to marry. Or that if they do a loathsome disease may be transferred to an unsuspecting wife or its stigmata to an unborn babe. Few girls know that in yielding to a too ardent lover they may contract a serious disease, or that syphilis may be contracted by the kiss of a dissipated man. They all know vaguely of a "bad disease" that may result from such relations, but they are unaware of its frequency or the great likelihood of their contracting it. Young women, and especially working girls, from whom prostitutes are largely recruited, should be shown the logical and inevitable ending of such affairs.

Boys are sure to learn something about sexual matters, and the more mysterious we make them the greater will be their curiosity. Unless we teach them facts, their ideas will be obtained from servants or older dissolute boys or young men who are posted on these matters and give the desired information in a boasting way, embellished with experiences that tempt them to explore the fascinating and unknown realms of passion.

"Good education is better than bad. The bad is sure to be acquired, therefore let us substitute the good." The age at which this should be begun, according to Keyes, is from 7 to 12, "before the age of puberty, before the sexual idea in its emotional garb has entered the imagination." He thinks they should be educated at home, in a kindergarten way, to a general knowledge of the idea that all life, of plant, of animal, of fish, of bird, comes from a previous life, and that as a rule it requires two previous lives before there can be any new life; that one of these lives is male life supplying something and the other is female life supplying the rest; and this can be objectively illustrated through flowers and trees; and the instrumentality of insects in fertilizing the blossom and thus producing seed and fruit. These facts can easily be brought into the child's comprehension without shock or shame. Then naturally as he grows older he can be carried on through biological and zoological channels until he comes to look upon sex as being as natural to a plant as to an animal, and after that further instruction will be easy and may be extended to any desired limit." Keyes remarks that shyness on the part of the parent is quite natural, but that this is the best way for parents to be taught, and that it should be begun when the parent himself is a child.

Social Problems.—Poverty and destitution drive many women to prostitution as the only means of obtaining a livelihood, and especially is this true of those who have incurred social disgrace by the birth of an illegitimate child. The State should make greater efforts to reclaim these women before they become totally depraved and a menace to public welfare. Much to be commended are the establishment of homes, as the one recently started here in Atlanta by Mrs. E. M. Jackson, for young women who come to the city for employment and who have no home environment and are surrounded by the temptations of a homeless city life.

Love of fine clothing, jewelry and luxuries beyond their means, rather than lust or sexual desire, drive many along the road to ruin. They sell their virtue, health, morality and even their souls for a few showy baubles.

The close intermingling of the sexes in the various forms of industrial life is to be condemned. Working girls should receive more adequate compensation for their services and should be furnished suitable places of innocent amusement.

The demand for prostitutes should be lessened by encouraging men to remain continent, and by assuring them that abstinence is perfectly compatible with health and sexual vigor. The number of men, if any, who are injured by refraining from sexual intercourse is infinitesimal when compared to the number who are diseased

and rendered miserable, impotent neurasthenics by the venereal diseases they contract trying to exercise a function they fatuously believe must be used or lost. Nature takes ample care of the seminal secretion by emissions, but the quack and charlatan, by deceiving men as to their significance, make them the most remunerative of the complaints of their patients.

More rigid laws should be enacted to regulate the presentation of vulgar and suggestive plays; the publication of obscene literature and the plastering of bill boards all over our cities with pictures that continually keep the mind upon things sexual and arouse amorous tendencies that more than counteract the good effect of a plea to remain continent. The nude and often lascivious "works of art" so constantly seen in saloons also act as a powerful suggestive factor, and at a time when the inhibition that would normally deter a man from such a step has been relaxed by alcohol. It is a well known fact that the majority of men contract venereal diseases when drinking.

A glaring evil, present in every city today, is the impunity with which abortions are produced. The wholesome fear of becoming pregnant, knowing its resultant disgrace, would prevent many from taking the initial step, if it were not so easy to have a criminal abortion performed. I doubt if there is an adult person in Atlanta who does not know of establishments where this illegal and disgraceful work is done. Some of them are well known and upon our leading streets. And yet they are tacitly ignored. Why? Because no one cares to gain the notoriety that would result from an effort to prosecute them. An organized society can do this, however, without undesirable publicity for any of its members.

One of the perplexing problems that confront us is the fact that houses of ill-fame are largely supported by old men and married men. The thought is a revolting one, but unfortunately too true.

Lack of affinity and incompatibility in married life is a cause of prostitution that is beyond our reach.

In all I have said nothing could avail so much as for men to curb their desires and exercise their faculty of self-restraint, but they will not.

Gentlemen we should organize a society here in Atlanta to mitigate at least this evil and to co-operate with similar organizations that are being formed in all large cities for the education of the public as to these matters and to combat the foolish "cultivation of ignorance" concerning such an important and far reaching subject.

We must constantly bear in mind, though, that the prostitute herself is largely a victim of environment, poverty and degeneracy, and consequently all our animosity should not be hurled at her, for she is truly 'more' to be pitied than censured."

To attain results we must attack the factors in our social system that produced her and make such a life profitable, although a life disgraceful and short, and let us try to remove the cause rather than control the effect. 1004-8 Century Building.

"As a physician who daily sees mental and moral instabilities—the result of indifferent fathers, coddling mothers and complacent teachers I say to college authorities," writes Dr. William Lee Howard, in the Medical Record, "place no barriers, subjectively or objectively, against football. I know of many miserable beings who, had they been allowed, or forced, at school or college to play football, would have been men today able to give the world lifts in science and literature—individuals who are wrecks because they were not allowed to run the risk of a bruised limb, or to learn Nature's laws. I have deep feeling in this matter, and say without reservation that a boy with a broken leg from football has a far brighter outlook for future success in life than the coddled son of a mother who will not look physiological facts in the face and learn that physical expression of activity is the only healthy channel for the expenditure of youthful energy, and if prevented this energy will be wasted along the line of immorality which will leave scars and wounds that last throughout a miserable existence. To the pedantic college presidents I say that football is one of the greatest factors we have ever had in school and college for producing moral men. There is a tremendous force for moral health in football and all rough games."

The newspapers recently treated their readers, says the Medical Record, to a harrowing narrative concerning a small boy who was supposed to have been bitten by a dog, and in the intervals of convulsions was "snapping at his attendants and barking like a dog," in the throes of hydrophobia. The fact that no one ever saw a hydrophobia patient "snapping and barking" does not deter the average newspaper reporter from indulging himself with this little flight of imagination. In the present case the coroner's physician found no evidence of hydrophobia, but discovered that death had in reality been caused by typhoid fever. The typhoid delirium had been mistaken for rabies. The Philadelphia coroner has now formulated the rule not to accept a diagnosis of death from hydrophobia unless it is confirmed by autopsy.

The Proper Management of Chronic Suppuration from the Middle Ear.†

By Dunbar Roy, M. D., Atlanta, Ga., Clinical Professor of Diseases of the Eye, Ear, Nose and Throat in the Atlanta College of Physicians and Surgeons.

A chronic discharge from the ear is no longer looked upon as a "necessary evil," it matters not what may be the character of the secretion. What cures of this condition that cannot be accomplished by local and constitutional therapeutic measures, can be accomplished by surgical intervention. Chronic middle ear suppuration should be placed in the same category as chronic appendicitis, and like the latter should receive the same kind of treatment. The general public has become educated upon the necessity of being operated upon for appendicitis, while chronic fetid suppuration from the middle ear they look upon as of no consequence, failing to realize that such patients are calmly resting upon a smouldering volcano which at any time may develop into a sinus thrombosis or a brain abscess, to be followed quickly by death, and in many cases the cause incorrectly stated upon the burial certificate.

Fetid discharge from the ear has been the bete noir of the general practitioner and even of the specialists for years past, but in the recent development of aural surgery as exemplified by Schwartze and Stacke this condition need no longer be allowed to run its indeterminable course, undermining the health of the patient, but by a thorough and radical operation this pathological condition can be removed and the discharge cured.

Allow me to make myself clear as to the meaning of a chronic discharge from the middle ear. There are two kinds of chronic discharges:

1. A catarrhal, mucoid secretion, free from odor except when the ear has not been cleansed for some time, coming from the middle ear through a perforation in the drum, associated with the same kind of catarrhal secretion in the nose and nasopharynx. This condition can nearly always be cured by local therapeutic measures directed to both the ear and the nasal mucous membrane. This form of middle ear discharge is frequently seen in children, especially those with adenoids in the nasopharynx and in those recovering from measles and scarlet fever. Proper and thorough treatment of this form will produce a cure, frequently the only thing necessary being the removal of the adenoids. However, if the condition is not treated it will pass into the next form, of which especially I wish to speak.

2. Discharge from the middle ear, of whitish desqumated epithelium, with purulent fetid secretion, destruction of the drum membrane and in many cases erosion and liquifaction of the auditory canal at the point where the drum should exist. This is the form that must usually be designated as chronic, and is the form nearly always existing if over a year in duration.

All chronic suppurative discharges must have previously been acute in character, but whether due to neglected treatment at the time or to some inherent constitutional dyscrasia, such is frequently hard to decide. There is always some reason why one child suffers with a chronic discharge for months and years, from the middle ear following an attack of measles or scarlet fever, while another child will have equally as severe an acute condition and yet the discharge will cease in a few weeks. In such cases as the former I have never failed to find some hereditary systemic dyscrasia, it matters not what we call it, whether inherited syphilis, scrofulosis, tuberculosis, cretinism, chronic adenitis, etc. Consequently when such discharges have become chronic in individuals suffering with any of the constitutional dyscrasias, it is very easy for local changes to take place in the middle ear, such as polypoid degeneration of the mucous membrane, necrosis of the ossicles and walls of the tympanic cavity, the formation of choleasteatomatous masses, which when they have once found a firm foothold are almost impossible to be eradicated except by surgical measures. In such cases thorough and appropriate treatment should be used at the time of the acute attack, and thus avoid in many cases the extension of the same into a chronic condition. Proper treatment of these cases in the acute stages will in the majority prevent a subsequent chronic trouble. I am firmly convinced that most of the cases of chronic suppuration from the middle ear result from the mastoid antrum having been seriously affected at the time of the acute trouble, and if the same had been recognized at that time and a simple mastoid operation performed then upon the ear the subsequent trouble would in all likelihood have been avoided and the necessity for a more radical operation have been removed. In the treatment of such cases internal constitutional medication plays as prominent a part as all the local remedial measures at our command, consequently the work of the aurist should go hand in hand with that of the family physician. Coming now to those cases which are chronic when seen by us for the first time, let us consider their symptoms and their proper management should

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we desire the best results.

Cases of chronic suppuration from the middle ear are multiform in variety. Just as acute cases differ in severity so also the chronic forms.

Objective Appearances—These vary greatly. The longer the time the discharge has existed, the more destructive will be the appearances. In all of these chronic cases, as a rule, if there has been no active treatment the walls of the auditory canal will be found white and glistening, the epithelial layer of the skin having been entirely eroded by the passage out of the secretion. On syringing one of these chronic ears which has not been treated, we will find coming away with the water large flakes of desquemated epithelium both from the drum canal and tympanic cavity. When this is removed we will find that the drum membrane will contain perforations of all sizes, and in many cases only a rim of this membrane will be present. Experience and observation teach us that the longer the chronicity has been present and the more severe has been the purulent process, the more destruction of the drum membrane we are liable to find.

In some cases the mucous membrane of the middle ear will be white and sclerosed, while in others it will be red and granular in appearance and in some cases showing a distinct polypoid degeneration.

If, with the destruction of the drum membrane, we find also an erosion of the inner inner wall of the canal and the tympanic cavity, with the presence also of cheesy, fetid secretion, then we have the suppurative condition in its worst form, and it is just in these cases that complications of a most serious nature are liable at any time to occur. By means of a probe passed up into the tympanic vault or back towards the mastoid, necrosed bone is nearly always likely to be found, and rarely ever have I found that disgusting fetid odor without discovering the presence of dead bone. In fact, experience teaches me that in those cases where the odor is exceedingly offensive, the drum membrane destroyed and the attic filled with cheesy masses, nothing short of a radical operation will be sufficient to effect a cure. In many of these cases there will have been an involvement of the mastoid bone at the time of the acute attack, but having free drainage by the way of the auditory canal and middle ear, the symptoms may not have been severe enough to warrant a mastoid operation at the time and yet sufficient to cause a disintegration of the cell spaces of the mastoid and especially of the antrum itself. For this reason a mastoid operation performed during an acute attack, when every symptom points to the involvement of this bone, even though the classical symptoms of redness and edema over the mastoid be absent, will often be the one treatment which will save the patient years of chronic trouble, save the hearing and be a probable preventive of a more radical operation in this region at some later date. I have rarely ever done a radical operation upon the middle ear where I have not also found some chronic changes in the mastoid, and in some cases even a small fistulous opening may be found on the surface of the mastoid which shows the previous involvement of this bone. In many of these cases the offensive odor from the ear involved is sometimes terrific, being a symptom which in itself will necessitate an operation.

Such a case as this recently came under my care. A young girl, 9 years of age, an inmate of the Home for the Friendless, was sent to me with a note saying the discharge and odor from one of the ears of this patient was so offensive that her teacher at the public school had sent her home with the message that the odor was so disagerable in the school room as to be compelled to request the withdrawal of this girl from the school. On examination I found the left auditory canal with a cheesy, choleasteatomatous mass, which, when washed away, disclosed the middle ear with drum destroyed and only remnants of the ossicles remaining. The odor was something fearful. She was placed in the Grady Hospital, where I performed a radical operation two days later without skin grafting in the canal. It took eight weeks for the middle ear and canal to heal, but after that the ear was thoroughly dry, all odor disappeared and in the same time the patient gained ten pounds. Previous to this the ear had been treated in the ordinary way for five years without results of benefit.

Subjective Symptoms.—These also vary greatly. Some patients with suppurative otitis media go through life without any discomfort whatever, while others experience pain in the ear whenever they take a cold, suffer with neuralgia of the head and face, headaches and general discomfort, vertigo, and above all a general lack of what we call good health. That such a suppurative process is a drain upon the entire constitution has long been recognized by otologists, and although the discharge may seemingly be perfectly free, yet there cannot be any question of the absorption into the lymphatics of a certain amount of this poisonous material. It is self evident then that it is for the best interests of the patient that he be cured of such a pathological process. An acute exacerbation on top of a chronic process is always more

serious than an acute process occurring in the ear for the first time, since in the former the surrounding walls are not near so able to act as a barrier against any outward extension of the acute process as they would be in the latter case. Consequently most of the complications which arise occur in cases where the acute attack has been preceded by a chronic condition.

The treatment of chronic suppurative otitis media will divide itself naturally into two heads:

(1) Conservative, or such as are treated by the local application of medicinal remedies.

(2) Radical, or such as are treated by surgical intervention.

1. When a suppurative condition of the middle ear has been treated for a year without decided betterment of the pathological process, the question of management resolves itself into either allowing the discharge to continue indefinitely or to undertake its cure by a radical surgical procedure.

Otologists differ very greatly as to the best remedies and the best mode of applying these in the treatment of this condition. Some advocate the dry method or that of the insufflation of powders, while others cling to the wet method, or that of syringing the ear and the use of drops. After all the success in curing a discharging ear by topical applications is largely a matter of personal thoroughness of the physician, it matters not what method is used. I mean by thoroughness, the giving of the time to each treatment instead of seeing the patient occasionally and allowing the treatment to be carried on at home during the interval. That some remedies possess more germicidal and therefore a more curative effect upon a diseased condition of the middle ear than others, is certainly not a fact to be questioned. During the last five years I have used a solution of formalin with decidedly more efficacious results than any remedy used previously. The use of this remedy is always tried for several months and even a year before considering a radical operation, unless there are some decided subjective or objective symptoms which would lead me to act otherwise. Such, for an instance, as almost continuous headache on the side of the affected ear; an old fistula over the mastoid process; a large area of necrosed bone or the presence of choleasteatomatous masses in the middle ear; an ear that has previously been treated for a long time by a good otologist without benefit—these are conditions that might influence me in urging an immediate radical operation. My method of treating the ear by topical applications is as follows:

The patient at the very beginning must be seen daily and then the visits diminished as the case yields to treatment. The patient's ear is syringed out thoroughly with a warm saline solution, followed with peroxide of hydrogen held in the ear, to be followed immediately with another syringing with the saline solution. The ear is then dried with cotton, after which a solution of formalin is dropped and held in this ear for five minutes. I start with one drop of a 40 per cent. solution to two ounces of water, and this is gradually increased to two drops from day to day and up to the strongest point of toleration by the patient. This remedy is nearly always followed by a dull aching and pain, and in some individuals there must be an interval of rest, otherwise a dermatitis of the canal may intervene. If there is much discharge, the patient is instructed to syringe the ear at home and to use also drops of a very mild solution of formalin. Should the use of this remedy cause too much swelling and irritation in the ear, then it is best to stop for a few days, using only the syringing with saline solutions to be followed by the use of aristol powder. After several years trial of all the various topical remedies which have been suggested for this condition, I have at last found that the above method gives the most satisfactory results and will frequently cure where all other remedies have failed. I am by no means an advocate of the dry method, or that of filling the ear with powder, stopping the discharge to all appearances but leaving the morbid condition beneath it unchanged. However, a combination of the two will sometimes prove most encouraging in its results. For instance, the aurist will find that occasionally an ear will heal, if after cleansing and drying the same a light coating of boracic acid or aristol powder is dusted into the middle ear. For this reason the methods of treatment must be changed according to the practical judgment of the aurist.

"2. If after a thorough and consistent trial of the conservative treatment, the fetid discharge still continues, and especially if there is present necrosed bone, then we are forced to subject the patient to the radical operation if we would effect a cure. I mean by a thorough and consistent trial, the use of every remedy that is likely to be healing to the ear, for aurists well know that the simple change of local remedies will sometimes cure an ear which previously seemed impossible to heal. Not long ago I examined a little girl, 12 years old, who had undergone two mastoid operations at the hands of another aurist, and yet the discharge from the middle ear indicated a necrosed condition of the tympanic walls.

I gave it as my opinion that nothing short of a radical operation would produce a cure. This the parents refused, but asked that I treat the case locally, even if I thought it could not be cured. This I consented to do, and strange to say in a month's time both ears were dry and apparently healed. Since this experience I am still more conservative in the thorough trial of local treatment before resorting to the more radical. Especially is this true in children and in those who have adenoids in the naso-pharynx, a condition which should always be removed before we think of doing a radical operation upon the ear. In using these local therapeutic remedies, we must by all means remember to put the middle ear in as good a condition as possible. For free drainage from every little crevice and the inspection and palpation of every part of this region is absolutely necessary to secure the best results from the treatment which is to follow. This means the removal of any remnants of the drum membrane, and necrosed ossicles; the curetting away of any diseased tympanic wall, especially in the region of the attic, and the removal as thoroughly as possible of all polypoid mucous membrane. This latter must be done before local remedies can have the desired effect."

By the radical operation we mean the removal of all necrosed bone in and around the tympanic cavity, including the ossicles, a result which can only be accomplished by removing the bone between the mastoid antrum and middle ear, throwing thus the auditory canal, the mastoid antrum and the middle ear into one cavity. Let us mention the fact here that this operation is not to be spoken of lightly as being one of simplicity and easy of execution, for few operations require better anatomical knowledge, more deftness in the manual technique and better operative judgment than is required in the so-called radical operation on the middle ear. An extensive experience with this operation upon the cadaver should have been acquired by every operator before undertaking it upon the living, an experience which is not only due the patient but is also due the physician himself. The surgical skill necessary in the proper performance of this operation, has not been recognized by the laity, certainly not to that degree with which they consider an operation for appendicitis, when in fact an operation of the latter nature is much simpler, requires much less time, and is being performed successfully by almost every physician with any surgical experience.

In the performance of the radical operation upon the middle ear, the occurrence of the following results must be considered and should be intelligently placed before the patient or his parents before the same is undertaken:

1. Injury to the facial nerve with a consequent facial paralysis for a more or less indefinite time.

2. A loss in the amount of hearing power in that ear as compared to that which existed before the operation.

3. A possibility that the discharge may not be entirely cured.

4. A last possible result need hardly be considered, and that is an injury to the sigmoid sinus, an accident not liable to happen to the careful operator.

The technique of the operation is as follows:

The patient is prepared just as we do for all major operations, the hair shaved for an inch above and behind the ear, the parts thoroughly cleansed with a bichloride solution and a pad placed over the ear until the patient is on the table and under the anaesthetic.

An incision is now made through all the tissues down to the bone, commencing at the middle of the tip of the mastoid extending up in a curved direction around the top of the ear to a point directly above the base of the tragus and about ¼ inch from the attachment of the auricle to the external auditory opening. With a periostetome the soft parts are pushed back and the bone laid bare over the mastoid and above the external auditory canal. With a small blunt periosteal elevator the canal is detached posteriorly and above down to the tympanic ring, leaving as much undisturbed anteriorly as possible as an anchorage when the same is replaced. A strip of gauze is now pushed down in front between the cartilage and the bony canal and brought out again through the natural canal opening, thus serving most admirably as a retractor for pulling forward the membranous canal. At this point operators differ as to the next line of procedure, but in my own work I have been exceedingly well satisfied with the following techdique:

With a chisel and mallet the bone is carefully removed in layers from the supra meatal triangle downwards, following closely the posterior wall of the canal until the antrum of the mastoid has been entered. A probe is now bent and passed from the antrum into the attic of the middle ear and this must remain as our guide in preventing an injury to the facial nerve. With gauge, bone forceps and curette the superior and supero-posterior walls of the bony canal are gradually removed, giving the opening thus made a conical shape with the apex towards the middle ear. In removing the bone just above and below the probe which

has been passed from the antrum into the middle ear, we must be exceedingly careful, since it is just here that an injury to the facial nerve is most likely to occur. Sometimes in removing the superior wall of the canal we are apt to uncover the dura, but this need not give us much concern, since this membrane has a wonderful ability in taking care of itself. When all the bony canal required has been removed, we can then inspect directly the tympanic cavity and remove without difficulty the ossicles and any remnants of the drum membrane which may still exist and also be able to curette thoroughly the tympanic cavity. In curetting we should be very careful, otherwise we are very likely to injure the facial nerve and the anaesthetizer should watch carefully for any muscular twitchings about the face when the surgeon is working in this region. The mastoid antrum, auditory canal and tympanic cavity having now been thrown into one cavity, and all foci of chronic suppuration having been removed, and the whole cavity having been thoroughly swabbed with alcohol, we are now ready to replace the auricle and membranous canal. Since the auditory canal is now much larger posteriorly than previous to the operation the cartilaginous membranous canal in its natural shape will not be able to fill this new formed cavity, so consequently we slit the membranous canal supero-posteriorly all the way from its inner extremity up into the concha of the auricle and then replace this slit membranous canal. This is held in place by an iodoform gauze packing through the normal auditory meatus deep into the middle ear, which in this manner will hold the membranous against the bony external auditory canal. There is, of course, a space left between the cut surfaces of the membranous canal which can be filled immediately by skin grafts, or this operation be postponed until a later time. Primary skin grafting is exceedingly difficult of performance and the results not at all encouraging. The posterior skin incision is now closed entirely by interrupted sutures while the middle ear is treated and drained through the normal auditory meatus. A wet bichloride gauze dressing is now placed over the ear and the whole secured with a roller bandage. In the description of this operation I have, of course, not gone into every detail, and some of the steps are more extensive than has been described.

After Treatment.—The packing in the auditory canal and middle ear need not be removed until the fifth or sixth day, unless some complication should arise, such as a high elevation of temperature. The outside dressing should be removed once every 24 hours, because it makes the patient feel very much more comfortable. During the first 36 or 48 hours the patient is apt to have very severe pain resembling an ordinary earache, and if this occurs small doses of codeine will have to be administered. At the end of five days the internal packing, which is the most painful of all the dressings, can be removed, the cavity wiped out with dry sterile cotton, swabbed with alcohol and bichloride of mercury and then repacked with narrow strips of iodoform gauze. These packings from now on can be changed every two or three days and the same methods of cleansing used as was done at first. We need not be surprised to find an odor on the packings for the first week or two, but this will gradually disappear. In ten days if the posterior wound has entirely healed the stitches may be removed and the patient allowed to come as an office patient. It is necessary for the patient to be under observation and treatment for at least five to eight weeks, and sometimes even longer. The question as to how long we should continue the gauze packing in the auditory canal is one which I have never seen mentioned. My own experience leads me to the conclusion that the patient does decidedly better when the packing is used than when it is not, for it drains the ear better and prevents in some degree the formation of granulation tissue. Consequently I think the packing should be kept up until the ear is practically well, varying the amount and frequency of application to each individual case.

What should be the final appearance of an ear upon which the radical operation has been performed? The whole cavity should be covered with skin, for that is what we attempted at the time of the operation, except at the point of its junction with the middle ear, which will here show a muco-cutaneous surface.

What effect does the operation have upon the hearing? In nearly every case the hearing ability is less than it was before the operation, in some it remains the same and in a few the hearing power improves. On the other hand the general health always improves, and even though the hearing is made less we can always be assured that we have helped rather than retarded the patient in successfully battling against future physical ailments.

The Treatment of Surgical Tuberculosis.—Low (London Medical Lancet) sums up the treatment of osseous, arthritic, and glandular tuberculosis as follows: (1) In all cases "open-air" treatment should be organized to meet the circumstances and requirements of the particular case. (2) In

every case the patient's power of resistance to the disease should be periodically measured by suitable blood examination. (3) Where the resistance is found low and there is no evidence of an excessive autoinoculation, use should be made of therapeutical inoculations of Koch's new tuberculin in doses that are accurately controlled, both as regards their amount and repetition, by examination of the blood. (4) In cases in which there is evidence of excessive autoinoculation absolute rest with complete fixity of the diseased part should be prescribed. (5) In cases in which it is evident that the diseased area is circumscribed and practically cut off from the circulation of tissue fluids efforts should be made to improve the circulation through the diseased area. The means we have at our disposal are fomentations and the use of certain mild irritants—*e.g.*, liniment of iodine and Scott's dressing, light therapy, general massage, and local massage with carefully regulated movements. (6) Operative procedures should be directed to the removal of the dead, inert material, whether pieces of bone or collections of pus, and should be conducted with the most scrupulous aseptic precautions. By means of modern cystoscopy tubercle of the bladder and kidney may be diagnosticated even before bacilli have appeared in the urine, and constitutional treatment can therefore be adopted at an earlier stage, with consequently greater hope of success. At a later period in the disease the condition of the second kidney in a case of renal tuberculosis can be ascertained with greater accuracy, thus obviating the removal of the less diseased kidney.

The Effect of Alcoholic Dextrins on Cases of Marasmus.—Symes (British Journal of Children's Diseases) states that few physicians will question the statement that infantile atrophy, or marasmus, that symptom of multiform pathological lesions, is one of the most difficult and unsatisfactory conditions with which we have to deal. Disappointment meets one day after day in disheartening recurrence. Despite our best efforts these cases waste away rapidly and die from marasmus, which we are frequently to unable to arrest.

This allusion is not made to such oblivous causes of wasting as tuberculosis in its numerous varieties, especially those grouped as abdominal and pelvic tuberculosis, nor to such causes as congenital syphilis, nor the stunted growth due to respiratory obstructions from adenoids and enlarged tonsils. Such cases of wasting are easily eliminated.

Under the term "marasmus" the writer includes that large class of food cases so commonly resulting from early administration of improper food, which induces disorganization and morbid secretions of the digestive glands; cases of immaturity, and sometimes even criminal starvation; and some of that terrible group of mechanical obstructions which block the alimentary canal. Among the varied lesions which are embraced by this last group will be found congenital hypertrophy of the pylorus of the pyloric stenosis, pyloric spasm (in the experience of the author these are very different conditions), congenital malformation of the duodeum, stenosis of the esophagus, and enlarged retropharyngeal glands. Some of these conditions are, however, irremediable save by operation.

It is highly useful in some of those cases which defy all our efforts and most approved methods of feeding, where cow's milk has failed and been abandoned even though skilfully modified, peptonized, or condensed, where breast feeding has failed with mother or wet-nurse; where asses' milk has been abandoned as insufficient to arrest the downward course; where patent foods have possibly aggravated matters; and where special marasmus foods, such as bread-jelly, wine-whey, eggs, meat juice, and brandy, have alike disappointed us. The child is now sinking, and our resources are nearly exhausted. We have given a bad prognosis, and are taking a hopeless view of the case. At this stage the administration of XXX Dublin stout, with, after a time, the addition of proteids and fat, will often save life. Such cases are the worst ones which present themselves. That these alcoholic drexins may be given at such critical times with perfect safety, and often benefit even to infants ot such tender age, is exemplified in the cases which the author reports. When the chemical composition of these malt liquors is thoroughly understood no alarm need be raised at the suggestion, extraordinary though it may appear.

Incipient Ovarian Tumors.—Doran (Jour. Obst. and Gyn. Br. Emp.) draws attention to the fact that an ovarian tumor may, in its earlier stages, before it has risen above the pelvic brim, be both painful and tender. He reports several cases to support this statement. The symptoms are conspicuous by their absence in patients of any age with small ovarian tumors. In these cases evidences of inflammation were for the most part absent and displacements of the uterus were the exception. The painfulness of a small ovarian tumor is of advantage as it betrays the presence of a new growth.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street. - - - -

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EUGENE HASTINGS BROOKS, M. D.

The sad and sudden demise at his home in Reidsville on the morning of December 1st,- 1906. from a three day's attack of pneumonia, of Dr. Eugene Hastings Brooks, removes from the ranks of the North Carolina medical profession one of the more prominent of the younger men who was destined to carve for himself a name high in the ranks of the state's successful physician. He was the son of Rev. Jno. R. Rrooks the well-known Methodist divine, native of Wayne County, N. C., was a student at Trinity College and later graduated in medicine from the Baltimore Medical College and passing a most excellent examination for state license' he entered upon the practice at Menreeten, later removing to Reidsville. He entered the State Medical Society some four years ago and immediately took rank with the best of the younger men in the organization both in the excellent character of the papers read by him and the equal facility with which he participated in the discussions of the Society. His paper on "Epilepsy", presented at the session in Greensboro is easily one of the best of the many papers in the volume of Transactions for that year. His work as Chairman of the Section of Pediatrics at the recent session was well done and some most admirable papers in that Section will appear in the fothcoming volume.

Dr. Brooks was active as citizen of the community is which he resided and interested in various enterprises for its npbuilding. He was Surgeon of the Second N. C. Reg. State Guard the time of his death and also the presiding officer of the Royal Arcanum in this state for the past two years. He was a member of and active in various other societies and fraternities. In personal appearance he was a large handsome man of commanding air and possesed of almost genial sunny dispostion, it was most natural he commanded a large and increasing clientele. Our warmest sympathies go out to the bereaved family and friends.

THE "LIQUOR" PRESCRIPTION DOCTOR.

The recent announcement in the columns of the daily press that the membership of a certain county medical society in North Carolina had unanimously resolved to petition the forthcoming session of the legislature to repeal the section in their county prohibition law permitting druggists to sell whiskey on physicians' prescriptions contains much food for thought when considered in all its possible bearings.

Without attempting to examine into the various phases of the subject presented by this proposed action on the part of the county society a brief reference to certain well-known facts may be of interest. In the first place it is well to note that the conditions underlying their proposed petitioning the State legislature are probably practically those which exist in the large majority of the incorporated communities of this and other Southern States. While there is drinking and drunkenness all over our fair Southland, yet there is all the time a constantly growing sentiment adverse to the man or woman who drinks, especially to excess, or who permits the community at large to have much witness of his drinking at all. *Pari passu.* with the growth of this feeling among the people, there is a most natural constant extension of prohibition statutes and a continuous restricting of the territorial limitations within which the unlimited or unrestricted sale of alcoholics are permitted. In the cultivation of this feeling on the part of the people the physicians of the country, and of the towns have taken, and quite properly so, an active part, teaching as the majority of our medical men do, every day, the harmful effects of the excessive use of alcoholics and restricting their prescribing of such in their practice. Hence we do not exaggerate when saying that the physicians have in a very large measure contributed to the development of the present public sentiment as regards the drink question.

As a profession the great majority of us are without question fully alive to the important position we occupy as medical men in the matter of cultivating drink or drug habits in our patients. Personally speaking for the profession, it is an undeniable fact that there are very few drunkards in the Southern profession, and we do not believe the proportion of either drunkards or drug habitues is nearly so great among Southern doctors as in some other sections of the Union. Unfortunately though, even if a man has studied medicine and acquired the legal right to enter into the most sacred and confidential professional relation known among men, with his fellows, yet the fact remains there are some few of the profession who are mentally and morally weak men and unable to either control their own appetites for drink or drugs, or to intelligently direct their friends and patrons along these lines.

This frail and feeble class of the profession need help. They cannot resist the inclination to weakly yield to the anguished

mean of every patient they meet and drawing out the ever-ready hypo. assuage his pain in the most speedy way; even at the risk of a future habit being formed. So in the "prohibition" communities, these same unfortunates of our medical brothers can not resist the pleadings of the laymen who seek to make of them and their signatures as physicians, simply agents for the sale of alcoholics in their communities! Almost every "prohibition" community has this sort of a doctor or doctors in it, or will have after the system has been in operation sufficiently long to breed the type. He is "known by his works." He is generally a good-natured, kindly disposed man, who would not intentionally (especially if it required real mental or moral effort to do so) harm any one, sometimes he drinks himself, often in fact,—he is not known by the prosperity he enjoys or the extensiveness of his practice or the special degree of profundity of his learning or any of the things which mark the successful professional man. No, he is unfortunately more often a "good fellow," but a miserable failure when compared either in point of reputation, character, or material prosperity with the leading men in the profession in his own community. Now, as medical men, our profession is duly and legally invested with certain rights and prerogatives which should, and do, weigh heavily upon every respectable and conscientious member of the guild. Under the permit of our State license as physicians we not only enter into most sacred and confidential relations with our fellowmen, but we carry with us the right to commit in our surgical procedures what are technically deadly assaults upon their persons with instruments, to administer to them the most deadly poisons—in short, there are tremendously wide bounds within which the physician ranges in pursuing his daily avocation. It is safe to say the vast majority of doctors appreciate fully the great responsibility the possession of these varied privileges confers and governs himself accordingly, but a few do not. The practical question presented by the suggested action of this county Medical Society in proposing to ask the legislature to prohibit the physicians from prescribing alcohol in their practice is one most far-reaching in its tendencies and effects, and should be most carefully considered ere such a step is taken. The State of Oklahoma is having strong efforts made within its present legislature to prohibit the sale of morphine and cocaine within its borders—for more than a generation the statutes of the U. S. Government have prohibited the sale of alcoholics in the late Indian Territory, and its populace yielding to that clamor of enervated nerves for stimulation have sought it in drugs, until so wide-spread have become the use of the narcotics mentioned that their sale is proposed to be prohibited.

Shall such a proposition meet with favor here in North Carolina and other Southern States, at the hands of the intelligent far seeing men of the profession?

Shall the State legislatures enact what drugs may be used in the treatment of disease? Shall the perversion of their privileges as physicians by a few of our doctors cause the great majority of us to be prohibited from prescribing remedial agents which have been viewed with favor for generations past, and which still possess beneficent therapeutic properties when wisely administered? Is not such proposed legislation an ill-timed and unnecessary, to put it mildly, invasion of the rights of legalized practitioners of medicine? These questions are submitted for the thoughtful consideration of medical men.

Meanwhile there are certain self-evident facts which should force themselves to the attention of every physician in this fair land of ours. We are too often criminally careless in the administration of alcoholics and narcotics, and do not exercise that careful regard for the possibility of an existing nerve deficiency which will call for a repetition of the dose. It has been suggested that morphine, cocaine, and a few other similar drugs should only be dispensed personally by physicians and never let the patients have in their possession a prescription or knowledge of the drug he is taking. This may be worthy of consideration at our hands. But one thing is certainly our duty in the premises, and that is to emphatically impress our weak and erring brothers of the profession that they are not only ruining the lives of the men and women they favor with "liquor" prescriptions on Sundays and in "prohibition" communities, for beverage purposes, but that each signature of a physician to such paper is a weak, miserable lie, and a lasting disgrace to the poor, weak individual penning it. Let us labor together for an elevation of professional standards along this line and endeavor to help these frail brothers to duly see the criminality and the contemptibility of the "liquor" prescription doctor!

With the issue for January, 1907, the Journal of the Association of Military Surgeons will appear under the new name "The Military Surgeon." Since its first appearance six years ago this journal has had a remarkably successful career. So far as we can ascertain, it was the pioneer Military Medical Journal in the English language, but it discovered a vast, unex-

plored field, and its success, although not unexpected, has certainly been remarkable.

At a regular meeting of the local Medical Society, recently held at Kinston, N. C., the following resolutions were passed:

(1) That no examinations for Old Line Life Insurance Companies be made for less than five dollars, *to be paid by the insurance company*, regardless of amount or urinalysis. This does not apply to Industrial or Benevolent Societies or Orders.

(2) That Society establish a Black List.

(3) That we will not attend or prescribe for any case of sickness which has been under the care of a physician except as consultant, unless said physician shall have given up the case voluntarily, or satisfactory arrangements have been made with him concerning his bill.

The Journal wishes that there might be more evidences of such a spirit of harmony and co-operation on the part of Medical Societies.

WHAT WILL THE PROFESSION THINK?

A subject of great importance to the profession always is that of advertising by physicians. The Code of Ethics of the American Medical Association discountenances any semblance of publicity and members of the fraternity who indulge in any sort of advertising, veiled or otherwise, are looked upon with disfavor and suspicion by those who endeavor to uphold the high tenents of a noble calling. In the December number of the Medical Era, we note an editorial dealing with this subject and inspired by the appearance, in a St. Louis daily paper, the Republic, of a group of pictures of six medical men of that city, with laudatory comments below the picture of each one of them. With fine irony the Medical Era says: "Of course, it is possible that the Republic, in a fit of generosity, did this gratuitously and even without the knowledge of the men." It further says that: "These men are not homeopaths, eclectics, physio-medicals, osteopaths, faith-curers or bone-setters, they are regular physicians who are members of ethical medical societies, local, State or national, yet here their pictures are flounted in the faces of the public."

We presume that the Era selected the names of the three most prominent of these offenders, since only three are mentioned. They are Drs. Wm. G. Moore, *a professor in the Marion-Sims-Beaumont Medical College, physician to several hospitals, Ex-President Missouri State Medical Association and St. Louis Obstetrical and Gynecological Society; Member A. M. A. and St. Louis Medical Society;* Bransford Lewis, *professor in the same medical school, Ex-vice president St. Louis Medical Society, Ex president Mississippi Valley Medical Association;* and Clarence M. Nicholson, *professor in Medical Department St. Louis University, Associate Editor Journal of Missouri State Medical Association, Member A. M. A. and St. Louis Medical Society, President Missouri State Anatomical Board and Secretary Missouri State Medical Association.*

It is evident that these men have been prominent in medical organizations and from utterances quoted by the Era from addresses of two of them we would believe them to have been ardent upholders of the Code. They condemned this very thing in no uncertain terms, and yet here is the evidence that they were beguiled by a desire for notoriety and their names have become a "stench in the nostrils" of the profession.

The Journal thoroughly approves of the stand taken by the Medical Era in regard to this matter. We believe that it harbors no spirit of revenge, is actuated by no personal animus. It is a wrong which we dare not disregard, and which if corrected must be remedied by the independent medical press. If this growing, insidious spirit of commercialism be not combatted, no man can tell to what depths the profession may descend.

We are pleased to note the recent improvements and enlargement of the Hygeia Hospital in Richmond. Dr. J. Allison Hodges, its owner, is not unknown to the profession, and the mere fact that it is the only institution, so far as we know, in which the staff devotes its whole attention to internal medicine should recommend it all the more highly to those of the profession who must deal with disease in general. Certainly it has accomplished something for the science of medicine and the effort has been and is to place its hospital methods on a par with those hitherto applied especially to surgery.

DR. SUSAN DIMOCK.

A very readable article is to be found in the December "Outlook" detailing more or less of the origin of "An Invisible Institution," as a private system of securing homes for unmarried pregnant females, is termed, which has become one of the most beneficent of the many public charities of Boston. In the charmingly penned narrative much space is given to an appreciation of the work of the woman who was the founder of the system, and whose gentle, yet learned and sympathetic guidance coupled with an intelligent and high order of executive

ability made practicable help for this unfortunate portion of humanity.

Her name was Susan Dimock, the daughter of a New England school master who, coming South to teach temporarily in the early forties, located in North Carolina where he married into a well-known Southern family and made this his permanent home where Susan was born. At the age of twelve she insisted upon studying medicine, a determination which becoming more fixed, we find her at eighteen domiciled in New England and studying medicine. Her capacities as student won most favorable comment from the learned Dr. Samuel Cabot, of Boston, who predicted for her a brilliant career as surgeon if she chose to work especially in that line.

She acquired her full complement of the medical curriculum afforded students of medicine at that time in three years of study in Boston, and in 1868 repaired to Zurich and Vienna where the succeeding four years were spent in study and hospital work. Dr. Funk of the latter city, in writing of Dr. Dimocks, has said:

"Among those who attended my lectures in the General Hospital of this city she was one of the most talented and industrious, and all of my colleagues have expressed to me the same opinion. I still see her before me, this charming figure, as she stepped into the sick-room full of modesty and propriety as though she were treading on holy ground; as she listened with rapt attention to my every word; as she examined the patient tenderly and with merciful hand, and yet thoroughly and competently; how she handled any and all instruments with skill, clearly comprehending all phases of a disease, accurately distinguishing the essential from the incidental (a most rare gift in women doctors); and then, after thorough examination, how she gave with due care, still a straightforward, unshaken, independent opinion."

Leaving Vienna with the knowledge that she had received the most thorough medical education up to that time probably acquired by any American woman, she returned to Boston in 1872 and was for three years the Resident Physician to the New England Hospital for Women, and most active in the duties of her position as well as an instructor of nurses.

While it is said of her that "She ruled that Hospital like a little Napoleon," yet it was a quiet, gentle firmness which swayed all opposition before it. It is said of her that on one occasion having to reprove her class, on leaving the room she remarked to a close friend, "Do you think I was hard on them? If you do, say so, and I will go back and tell them so." Then musing to herself she said, "But they must remember a doctor has no right to ever forget!"

In one of her lectures to nurses she said, "Think that every patient you have is your sister." Going abroad again three years afterward in 1875 this gifted daughter of North Carolina was ship-wrecked and lost in a storm at sea off the coast of the Scilly Isles. Recovered from the fury of the waves some days later, it was matter of much remark at the calm, serene expression of peace and power on the face of the remains.

At the annual session of the Medical Society of North Carolina in New Bern in 1872 Dr. Dimock presented a petition for membership, which formal application, along with a letter from her in which she recounted her affection for her native State and expressed her earnest desire to become a member of its organized medical profession by being admitted to the Society, was presented by Dr. S. S. Satchwell and warmly espoused by him and Dr. E. Burke Haywood. The motion was vigorously fought by Dr. Marcellus Whitehead, and quite a prolonged debate was had; Drs. Satchwell, E. Burke Haywood, R. B. Haywood and P. E. Hines favoring it, and Drs. M. Whitehead and A. B. Pierce with C. Tate Murphy opposing. Dr. E. B. Haywood made a speech at length, it is stated, in which he declared the time was upon us when we should recognize women in whatever capacity they desired to labor, especially eulogizing the splendid efforts of women in behalf of the Confederate soldiers. The records of that meeting of the State Society show as present in attendance during the session 34 members, and the vote on Dr. Dimock's petition for membership was 17 affirmative and 15 negatives. Dr. Susan Dimock thus became the first female member of the State Society.

The times change and we change with them, and just thirty years after Dr. E. D. Dixon-Carroll was one of the Vice-Presidents of the State Medical Society, being one of a group of North Carolina women physicians including others like Drs. Anna M. Gove, Annie L. Alexander and Louise A. Merrimon, who have brought honor to themselves and credit to their chosen profession.

THE CASE OF ALBERT T. PATRICK.

Quite recently there has appeared in the newspapers the announcement that the sentence of death, which has hung over Albert T. Patrick for seven years, has been commuted by Governor Higgins, of the State of New York, to life imprisonment. This practically means a victory for Patrick and there can be little doubt that he will ultimately be pardoned. His fight for life has

been fierce and unrelenting during all these years. It will be recalled that the defendant was charged with and convicted of the murder of Wm. M. Rice, an old man 84 years of age. At the trial the contention of the proeecution was that death resulted from the administration of chloroform. Conclusions were based chiefly on evidence found in the lungs at the autopsy, the record of the examination was as follows; "left lung congested and edematous. Right lung same and a small area of consolidated lung tissues about the size of a 25-cent piece in lower lobe." No microscopical examination of these organs was made. On these findings was based the conclusion that death resulted from the administration of chloroform, experts testifying that the vapor of this drug is "capable of causing such active co-extensive congestion." Within two hours after death the body was embalmed; the fiuid used, containing formaldehyde gas, was injected into the right brachial artery and no blood whatever was withdrawn from the vessels. It was after the embalming was done that the autopsy was performed. Now the interesting and important point, which has been the chief contention throughout all the trial and all the fights that Patrick's supporters have waged since his conviction, was: Could the embalming fluid reach the lungs? If so, could it have produced such a condition as was sound in these organs?

It seems that this is a question which, at least at the time of the trial, no medical man was able to answer, except theoretically. Eminent men positively stated that it is impossible for fluid injected into the brachial artery after death to reach the lungs. Their belief seems to have been that the fluid could pass only backward to the aorta at the origin of which the valves would effectually prevent the passage of fluid. They did not believe it possible for the fluid to pass through the capillaries to the veins, thence to the right chambers of the heart and so on to the lungs. It is just this point to which we would call the attentian of our readers. In an interesting article in the Medico-Legal Journal, of Sept., Clark Bell, Esq., L.L.D. deals with the subject. He quotes at length from a report of experiments undertaken by Dr. Albert T. Weston to prove the course taken by the embalming fluid in the blood vessels. This gentleman performed on human bodies a number of tests which seem full and complete. He opened the chest and abdominal cavity thus exposing the viscera of both cavities and while injecting colored fluid into the right brachial artery was able to demonstrate its course. He found that the fluid after filling the arteries passed through the capillaries into the veins, thence back to the right chamber of the heart, from which it easily reached the lungs. His investigations prove that embalming fluid does reach the lungs and in fact every tissue of the body, provided too long a time does not elapse before it is embalmed. This point proven it was not difficult to show that the embalming fluid, in the lungs mixed with blood, would cause a condition, to all appearing like, and impossible, by the unaided eye, to distinguish from, a genuine active congestion.

If the two points are, as they seem to be, established beyond all doubt, we venture the assertion that Patrick will yet be a free man. Still we do not wish to appear in the role of championing the cause of the accused. What the Journal particularly desires to do is to call the attention of its readers to a question of medical jurisprudence upon which the profession has apparently been densely ignorant.

Review of Southern Medical Literature

The Medical Recorder, November, 1906.

Present Status of Radiotherapy.—Dr. W. S. Lawrence says that not many years ago few operators owned more than one tube. With only one they attempted to do all kinds of work—picture work, surface treatment and deep-seated treatments. Today we know that we must have a variety of tubes for a variety of work, and that between $100 and $200 may with profit be kept invested in tubes alone. We know that while the X-Ray can neither be focused, reflected, refracted, or in any other way turned from its course, still it may in a way be filtered and separated into its apparently component parts of alpha beta and gamma rays. A piece of moistened chamois placed between the tube and the skin will make no appreciable difference on the radiographic plate nor on the fluovescent screm; it does not cut off these rays, but it does absorb possibly more than 50 per cent. of the soft rays, which are most irritating to the skin. In this way we are able to attack with hard rays the deeper tissue, while the skin is protected from the soft rays, which are most irritating to it. The weight of the tube rests full on the patient, whose skin is protected only by a layer of moist chamois. While we do not do this with our eyes shut nor until we have learned something of how our patient is going to stand treatment, still we do it with very little dread of the old-time bugbear X-Ray burns.

Other things we know is that there are still a great many things that we do not know about the X-Ray. Enough of this

there is to make it a fascinating field to till for some time yet to come. Only time, study, and enthusiasm tempered by conservatism can bring us light and make the future of radiotherapy even brighter than its past and present.

Southern Medicine and Surgery, November, 1906

A Few Hints to those Contemplating a Visit to Vienna.—Dr. Wm. Litterer gives the following rules adopted by the American Medical Association of Vienna, which was organized by the visiting American physicians in 1904. The society assumes a certain responsibility for keeping the courses full and for conducting them to advantage, also of the man giving the course. The following rules have been adopted to govern these courses.

1. All medical men in good standing and engaged in post-graduate work are eligible for membership. Life membership fee is two kronan (40 cents).

2. A course in medicine consists of twenty-five lessons; in gross pathology of twenty lessons.

3. A man establishes his position as regards precedence in the so-called book courses by signing the books provided for that purpose and kept at the Pension Welser in charge of some member living there, who shall be appointed to that duty by the President. These books must be signed in person. Each name must be on a separate numbered line with the date of the signing affixed. The men conducting the representative courses shall notify the signer when his turn comes to enter a course by cards provided by the society for that purpose.

4. The position thus established holds good during the signers period of study in Europe if continuous. It is forfeited if the signer remains away from Vienna for more than three consecutive months without giving notice to the secretary of the society of his expected return to the city. All such notices are to be read before the society and embodied in the minutes of the meeting. This rule is not to be so construed as to prevent a member of the society from returning to America for three months to attend to important business.

5. The courses in medicine are limited to ten men each, and the course in gross pathology to twenty.

6. The highest man on the list in each course has charge of it, and to him the fee shall be paid in advance.

7. Only those men are to be notified of vacancies in a course whose names are lower on the list than the lowest man in the course and they are expected to answer the notice sent them within forty-eight hours.

8. The chair occupied by a substitute must be considered vacant by the course conductor, who shall then proceed as directed by rule 7.

9. The registration books are open to all students irrespective of nationality, as all courses are University courses.

Texas Medical Journal, November, 1906.

Complications of Gonorrhoea and Treatment.—Dr. E. B. Parsons, under the head of prostitutes, outlines the following complications: Prostititis, one of the most important and a very frequent complication of gonorrhoea occurs during the course of a posterior urethritis. From the passage of instruments, sexual excitement, alcoholic excess, exposures, or from simple extension of inflammation the condition is usually ushered in by a chill, followed by a sense of heat, distension, weight in the perineum and rectum and is followed by frequent urination, burning urine both before and after the act of defectation, and is also painful. Sometimes fever and chill is very intense. On examination of the rectum one finds a large mass, tender to the touch; as the disease progresses the pain increases and becomes throbbing, and will radiate to the neighboring regions. Defecation is difficult and painful, also urination is frequent and there may be complete retention. The condition may end in resolution, leaving the prostate chronically enlarged, or may suppurate. These conditions, the author believes, are responsible in many instances for the prostatic troubles in old men. Another important diagnostic feature is when pus is present it may discharge through the urethra and only be present during the urinary act, as the contraction of the cut off muscles prevents the escape of pus during the interval; it may point through the rectum or perineum.

The treatment of prostititis to abate the inflammation by rest avoid the passage of hard instruments; in case of retention use gently a soft rubber catheter and anchor. This is better than frequent use of hot water douches in rectum and fomentation to perineum; never use massage in acute cases; anodynes if pain is severe.

Virginia Medical Semi Monthly, Nov. 9, 1906.

Appendicostomy.—Dr. Stuart McGuire believes that the operation of appendicostomy, though less than four years old, has been firmly established as a rational surgical procedure. It consists in bringing the appendix through an abdominal incision,

opening its tip and using its lumen to irrigate the large intestines. The value of the operation will be appreciated after a consideration of the following facts: 1. Chronic diseases of the large bowel are frequent. 2. They are exceedingly rebellious to internal or local treatment, as drugs by the mouth are rendered inert in the small intestines, and injections by rectum are not only disagreeable but often inefficient because of the difficulty in reaching the upper portion of the tract. 3. The appendix is located at the very origin of the large bowel; hence fluids introduced through it reach every part of the canal. 4. The operation of delivering, attaching and opening the appendix is so simple that it can be safely done by the average surgeon. 5. When the opening is once formed the irrigation can be efficiently carried out by the patient without pain or discomfort.

Results.—In forty-four cases of dysentary there were six deaths, but none of them due to the operation. Two were from unsuspected tuberculosis, two from extreme ulceration of the bowel with chronic nephritis, one from exhaustion before the appendix was opened and one from cerebral disease three months after the operation. The remainder of the cases (38) are reported cured. In sixteen cases of mucous colitis the reports are all favorable. In some of them, however, it is difficult to tell how much good was due to the removal of the appendix and how much to the effect of the appendicostomy. The relationship between chronic appendicitis with adhesions and chronic muco-membranous colitis is very close, and the etiological influence of the one on the other merits a wider discussion than is permitted by the limits of this paper. Suffice it to say that by appendicostomy we get rid of the appendix whether it be the cause or effect of colitis, and at the same time give access to the parts for local treatment. In the cases reported where the operation was done for syphilitic ulceration the patients appear to have been greatly benefited, if not permanently cured. In cases of papilloma and carcinoma the operation was performed only as a palliative measure. In cases of volvulus and intussusception the operation was effectual.

The Texas Medical News, Nov. 1906.

Adrenalin Chloride in the Treatment of Rattlesnake Bite.—Dr. A. D. Ferguson recommends the following treatment: The treatment consists of adrenalin chloride hypodermically in sufficient doses and often enough to strengthen and sustain the heart until the poison is eliminated. Opium in some form for the pain—the better way would be to administer morphine hypodermically in half grain doses at first if the patient be an adult. The wound should be incised several times and injected with a strong solution of potassium permanganate for the purpose of eliminating any poison that may be unabsorbed in the tissues contiguous to the wound. Rattlesnake venom is deep green in color and has a very high specific gravity, and is comparatively slow of absorption, hence the necessity of incision, injection of permanganate, etc. However, when the fangs enter an artery or vein its toxic effect is almost instantaneous. The permanganate solution is said to be chemically incompatible with snake venom and to decompose all the venom that it comes in contact with in the tissues and blood.

The adrenalin chloride solution (adrenalin chloride 1 part in 1000 parts of physiologic or normal salt solution with 0.5 per cent. chloretone) should be administered in small doses and frequently repeated until its physiological effect is obtained, after which it should be administered just often enough to maintain its physiological effect. It is the effect of the venom circulating in the blood that we counteract by giving adrenalin chloride. It can be given in larger doses and repeated oftener in snake bite, because snake venom neutralizes its action upon the heart and circulation like pain neutralizes the action of morphine. Until antevenin or some other potent remedy is produced our main reliance in treating snake bites of all kinds lies in the early and careful administration of adrenalin chloride solution in conjunction with other appropriate remedies.

New Orleans Medical and Surgical Journal, November, 1906.

A Case of Suppurating Sub-Urethral Cyst.—Dr. C. J. Miller directs special attention to the difficulty of recognizing some of these cases and to the persistency of the affection. This case had been treated for cystitis. The first time she was examined the cyst was discharging into the urethra, and she was suffering acutely with vesical tenesmus and throbbing pain behind the symphysis pubis. The point of discharge was easily located at the time with a Kelly cystoscope and the treatment consisted of daily milking of the sac by massage until the sac contracted and pain disappeared. Six months later the pain returned, but was described as a continual throbbing and pressure pain without tenesmus. Vaginal examination again revealed the sac as a firm cushion-like swelling under the inner third of the urethra just in front of the bladder neck. Cystoscopic examination showed that it was not yet discharging into the

urethra and an operation was advised before such a complication occurred, so that the sac could be drained without causing a urethro-vaginal fistula. The sac was incised under local anesthesia and drained of about two teaspoonfuls of muco-purulent fluid. It contained a distinct lining showing its cystic nature and differentiating it from the cases arising from chronic circumscribed urethritis of specific origin. The lining could not be dissected free, so the cavity was packed after the edges were stitched to the vaginal plate. She made an uneventful recovery and obtained immediate relief from the distressing pressure and throbbing. The treatment of these collections is clearly indicated; the diagnosis is perplexing especially if the abscess is not discharging at the time the examination is made. Patients usually give the history of urethral symptoms of some standing. Palpation will show the thickened edges of the walls of the urethra if the trouble has been caused by peri-urethral inflammation. Pus may ooze constantly from the urethra or may be discharged suddenly in considerable quantity. The urethral speculum is valuable as a diagnostic aid. Treatment consists of dissecting out the sac or thoroughly draining it and the use of a catheter for some days to avoid a permanent fistula.

The Southern Practitioner, Nov., 1906.

Ventral and Umbilical Hernia.— Dr. Geo. C. Traivich says that before the introduction of Mayo's operation for umbilical hernia, this was considered of all hernia the most difficult to treat and had given a larger percentage of recurrences than any other. But since this method has been used for the past nine years the results in this form of herniotomy have been quite as satisfactory as in inguinal hernia. The operation is performed as follows: 1. Transverse elliptical incisions are made surrounding the umbilicus and hernia; deepened to the base of the hernial protrusion. 2. The surfaces of the aponeurotic structures are carefully cleared an inch and a half in all directions from the neck of the sac. 3. The fibrous and peritoneal coverings of the hernia are divided in a circular manner at the neck exposing the contents. If intestinal viscera are present the adhesions are separated and restitution made. The contained omentum is ligated and removed with the entire sac of the hernia. 4. With forceps the margins of the ring are grasped and approximated. Which ever way the overlapping is more easy of accomplishment suggests the direction of the closure, (preferably this is done from above downward). 5. For this approximation an incision is made through the aponeurotic and peritoneal structures of the ring extending one inch or more transversely to each side and the peritoneum is separated from the under surface of the upper of the two flaps thus formed. 6. Beginning from one to one and one-half inches above the margin of the upper flap three to four chromic catgut mattress sutures are introduced, the loop firmly grasping the upper margin at the lower flap; sufficient traction is made on these sutures to enable peritoneal approximation with running catgut. The mattress sutures are then drawn into position, sliding the entire lower flap into the jacket previously formed between the aponeurosis and the peritoneum above. 7. The free margin of the upper flap is fixed by catgut sutures to the aponeurosis below and superficial incision closed in the usual manner.

The Alabama Medical Journal, November, 1906.

Significance of the "Morning Drop."— Dr. A. F. Toole selected four of our best known American authors and analyzed all their assertions as to what might cause a slight chronic urethral discharge or the "morning drop." There is thus secured the rather astonishing total of 45 separate causative factors, the presence of any one of which they assume to be sufficient for the appearance of the morbid moisture. Ten are acknowledged sequelae of acute gonorrhoea; nine are non-gonorrhoeal conditions of the genito-urinary tract; twelve might be called habit or environment, while fourteen constitutional diseases are said to be frequently complicated by this annoying discharge. Certainly no other ailment, whatever its size, gravity or frequency, can rejoice in such a varied etiology, and certainly the cause of accurate diagnosis suffers severely from having to drag around such a "hodge-podge" of possibilities. Suppose we employ the endoscope and fail to find erosions or papillomata; suppose we employ the microscope and fail to find sharp pointed crystals of oxalates, or lingering groups of gonococci; suppose we examine per rectum and fail to find a tender prostate or doughy seminal vesicles; what of that? May it not be due to some dietetic excess; to ungratified sexuality; to a "catarrhal idosyncrasy? Certainly, and by the same token it may not; nor would the opposite course, however much easier, come any nearer the truth when we pronounce each and every "morning drop" to be proof of uncured gonorrhoea. But whether we pronounce it due to obstinate constipation when there is really chronic disease in the prostatic follicles, or whether we call it a soft structure of large calibre in the bulb when it comes in fact from the patient's misguided de-

termination to strip the urethra until that drop does disappear the situation is almost equally bad on the patient.

Nashville Journal of Medicine and Surgery, October, 1906.

The Over-trained Nurse.—Dr. E. S. McKee says this subject has been under consideration in a number of medical journals of late, and has in most cases referred to the female nurse, as they are greatly in preponderance. In Paris recently the Civil Tribunal of the Seine rendered a decision of much interest to the medical profession. The family of a sick man at the request of the medical man in attendance applied to the Ambulance Society for a male nurse to look after the patient and give him hypodermic injections of quinine. One was obtained who gave three injections. The medical attendant on his visit found that the injections had been improperly given and an abscess resulted. The patient brought an action against the Ambulance Society for 1000 francs damages. The court found that the patient when he asked the Ambulance Society for a nurse had not definitely shown that he considered that the said nurse should be possessed of sufficient knowledge to give hypodermic injections; that a hypodermic injection is really an operation of minor surgery and in accordance with custom should be given either by the medical man himself or under his personal supervision; that it is quite possible for a hypodermic injection, if administered by a person not having the necessary knowledge or who did not take the proper precautions, to bring about grave results; that the giving of such injections did not come under the duties which a nurse might be expected to perform in order to carry out the prescriptions of the medical man; and finally, that it is possible to verify the claims of the patient, seeing that he had been quite well for some time. He was therefore non-suited as to damages and condemned as to costs. This frequent use of the hypodermic and the catheter by trained nurses is a subject which demands careful attention from the profession and may, if carried too far, result in harm.

Gaillard's Southern Medicine, Nov. 1906.

Diseases of the Pharnyx and Tonsils due to Faulty Metabolism.—Dr. C. P. Jones believes that the most important point in the treatment of this class of cases is a suitable diet. A written diet list should be given to the patient and he be thoroughly impressed as to its importance. Be sure and tell him that however skillful may be your treatment that no good results can be accomplished without a strict adherence to this. Impress on his mind that unless he uses his best and most honest efforts to get well that he will certainly sooner or later become helpless and probably have grave heart or kidney disease. The author gives the following list: First. Articles to be allowed in abundance: Raw clams and oysters, boiled fresh fish, fat bacon, broiled chicken and game, cabbage (well cooked), mashed potatoes, green peas, string beans, spinach cresses, lettuce, celery, cream, skimmed milk, buttermilk, graham bread, whole wheat bread, oatmeal, cracked wheat, rye bread, hominy, crackers, dry or milk toast, rice and stewed fruits without sugar. Second. Articles to be allowed occasionally; not oftener than once in two days; no one article to be taken twice in succession: Mutton soup, vegetable soup, chicken soup, sweet breads, tripe, eggs (soft boiled, poached or raw), small quantity of boiled ham. An item to be enforced is the drinking of large quantities of water; this can be acidulated slightly with lime or lemon juice. A large quantity should be taken at a time. Vichy water is valuable. A five grain Lithia tablet should be dissolved in a tumbler of water and drank half an hour before meals. The use of alcoholic, malt, or vinous liquors should be strictly forbidded; it may be necessary to gradually let the patient down by lessening the amount each day as rapidly as possible. To stimulate the action of the kidneys the author finds nothing as good as Basham's Mixture, the mustura ferri et ammonii acetati in three dram doses every three hours for the first two days, thence twice a day.

Maryland Medical Journal, Nov. 1906.

Tuberculosis in Cattle—How it may be Repressed and its Relation to Public Health.—Dr. L. Pearson says that heretofore nearly all the work that has been done in this direction has been done to repress tuberculosis in cattle for the purpose of controlling it as a disease of cattle, just as contagious pleuropneumonia and Texas fever are controlled as a disease of cattle and not on account of any relation of these diseases to public health. As a disease of cattle alone tuberculosis is of sufficient importance to justify expenditures very much greater than have yet been made for its control in any State.

The Pennsylvania work has been conducted on rather a large scale and for the purpose of testing comparatively different methods for the vaccination of cattle. These tests have included a great variety of methods that is of vaccinating materials and of modes of administration. The vaccines used with the best results consist of tubercle bacilli of human type. These are injected

into the circulation. The animal resists infection by these organisms, and the development of this resistance makes it possible for the subject to thereafter resist infection by the more virulent bovine tubercle bacilli. This process has been tested so fully that there is no longer any doubt that the principle upon which it is based is sound.

We have worked out a method which we know is effective and which will positively protect cattle against very severe natural exposure for years. It is highly probable that better methods will be developed, but it is satisfactory to have one available, now that it is well proven. Our method requires each animal to be vaccinated three times at intervals of a few weeks. By this means there is conferred a high degree of immunity that lasts for such a long time that it is of great practical value. Whether immunity lasts for life can only be determined by more prolonged trials.

But even this very valuable system cannot be applied to all dairy cattle on account of its tremendous expense. It will come into use but gradually, being first applied where the need is greatest. It will not take the place of all other methods for controlling tuberculosis, but will be used in connection with them. In the meantime bovine tubercle bacilli need not be fed to infants, for certified milk is available and other milk may be rendered safe in respect to this factor by adequate pasteurization.

The Virginia Medical Semi Monthly, November 23, 1906.

Puerperal Eclampsia.—Dr. J. B. Halligan gives the following treatment during the attack. He says that this depends on the condition of the patient, and whether delivery is near or remote or has taken place. The author believes that the presence of repeated convulsions at any period of pregnancy is an indication fortermination of pregnancy, as it is a well established clinical fact that the convulsions often cease upon the death of the foetus or upon the delivery of the child. The presence of convulsions at an early period of pregnancy indicates an extreme virulence of the poison or an undue susceptibility of the patient, either of which would most likely prevent the carrying of the child to term. Morphine is, in the author's opinion, the most reliable simple remedy in the treatment of eclampsia. It can be given hypodermically at the same time that chloral is given by the rectum. Thirty grains of chloral in one quart of normal salt solution is given per rectum as indicated. Morphine obtends the sensibility of the nervous system, making it less susceptible to the irritating action of the toxic material in the blood. The use of salt solution dilutes the blood and therefore less irritating to the nervous system. It also powerfully increases the renal secretion acting as an eliminant. In this respect it antagonizes the action of morphine, which has a tendency to suppress renal secretion. Calomel and croton oil are clearly indicated in nearly every case. Chloroform controls the convulsions for the time being. The patient should be wrapped in hot blankets, which should be changed every half hour. Veratrum viride has its advocates, but the author does not believe its employment rests on a rational basis. It is one of the most dangerous depressants in the materia medica. It also increases the mucus secretion, thereby directly increasing the danger of deglutition pneumonia.

The Southern Clinic, November, 1906.

Notes on Puerperal Eclampsia.—By Dr. W. C. Folger, Dobson, N. C.

The Atlanta Journal Record of Medicine, November, 1906

Medical Sociology in Relation to Medical Colleges and the Profession.—By Dr. R. R. Kime, Atlanta, Ga.

The Texas Courier-Record of Medicine, November, 1906.

Chronic Constipation and its Accompaniments.—By Dr. O. H. Westlake.

The American Practitioner and News, November, 1906.

Post-Operative Deaths with no Apparent Lesion.—By Dr. E. S. Allen.

Book Notices.

THE DUCHESS OF PUDA. By Oscar Wilde. F. M. Buckles & Company, New York.

This is a new edition of Oscar Wilde's works issued uniformly with the previous book containing "Lady Widener's Fan," "A Woman of No Importance," "The Importance of Being Earnest." The interest in Oscar Wilde's poetic and dramatic work seems to be equally apparent on both sides of the ocean. The author's genius is unusually versatile and is always admired.

THE GIRL OUT THERE. By Karl Edwin Harriman. Author of the "Girl and the Deal Etc." With illustrations by A. Russell. Geo. W. Jacob's & Company, Philadelphia and London.

A simple romante of country life. The hero is a newspaper man who has been sent

by his physician to a quiet hamlet to recuperate from an attack of typhoid fever. Naturally he meets "the girl out there" and although complications arise, the end is satisfactory. The author writes well. The illustrations are very attractively gotten up.

MEDA'S HERITAGE. By Maia Pettus. Author of "Princess of Glendale;" The Neale Publishing Company. New York and Washington.

In this story love and religion are interwoven. It is a story of Southern life. The heritage which fell to the heroine was a mission to preach the gospel and to take up the work laid down when death claimed her father. She finally wins success, only though after having trodden a path beset by obstacles and drawbacks. The book is very entertaining indeed, and is beautifully gotten up by the publishers and contains 265 pages.

DISEASES OF THE NOSE THROAT AND EAR. Charles Prevost Grayson, A. M., M. D, Clinical professor of Laryngology in the University of Pennsylvania, etc. Second edition. Illustrated with 152 engravings and 15 plates, in colors and monochrome. Lea Brothers & Company, Philadelphia, Penn.

The sections on treatment are by far the most valuable of this valuable book; under each disease but one plan of treatment is given, thus avoiding the confusion that exists in the minds of many after carefully going over a large work on treatment. For complicated cases one or more modifications are added. Each detail of examination is carefully entered into. Certain sections have been enlarged by the introduction of much new matter in this last edition.

The mechanical make-up of the book is most excellent and is evidence of the valuation placed placed on the contents by the ever careful publishers.

LYRICS OF LOVE. By H. R. R. Hertzberg, New York and Washington. The Neale Publishing Company.

This is a small little volume of 68 pages. It contains a collection of 65 poems, many of which hove previously appeared in different daily newspapers.

SUNDAYS IN LONDON, WITH FARRAR PARKER SPURGEON AND OTHERS. By Luther Hess Warint, M. A. New York and Washington. The Neale Publishing Company.

The author pictures a new London; the London that opens the churches and closes its shops. He say during the hours of service no underground railroad trains were run, and from midnight Saturday till midnight Sunday no work whatever was done by the city Post Office in receiving or distributing mail either for the city or the rest of the world. He describes some of the famous churches and discusses the equally famous men who are preaching or who have preached in them. The book is small, containing 128 pages; it is very attractively bound and a very interesting little book.

THE OLIVIA LETTERS. By Emily Edson Briggs. New York and Washington. The Neale Publishing Company.

This volume is a history of Washington City for 40 years as told by the letters of a newspaper correspondent. The author has recorded more particularly a history of the social life of Washington, the receptions, dinners, balls and various other functions. Her work is said to be the social compliment to the political history of the years between 1855 and 1886. A portrait of the author is in the frontspiece. The book is written in an attractive style and makes a volume of 550 pages and is nicely bound in cloth.

JEFFERSON, CABELL AND THE UNIVERSITY OF VIRGINIA. By John S. Patton. New York and Washington. The Neale Publishing Company.

The author presents a life of the Ex-President which is not generally known-The history of the University of Virginia which is the result of a great effort on the part of Jefferson and Cabell is brought up to date. This history necessarily deals with many prominent men of the faculty. To those who are interested in this great Institution, or Institutions generally of thischaracter will do well to add it to their library. The book contains 380 pages. It is well indexed and makes a nice volume.

THE LIFE OF GENERAL HUGH MERCER. By John T. Goolrick. New York and Washington. The Neale Publishing Company.

In addition to the history of General Mercer brief sketches of General George Weedon, James Monroe and Mrs. Mary Ball Washington, who were friends and associates of General Mercer at Fredicksburg; also a sketch of Lodge No. 4, A. F. and A. M., of which Generals Washington, and Mercer were members; and a genealogical table of the Mercer family.

IN THE SHADOW OF THE PINES. A tale of Tidewater Virginia. By John

Hamilton Howard. New York; Eaton & Mains. Cincinnati; Jennings & Graham.

The principal themes of this story are love crime, mystery and religious convictions. The material takes its title from the place where the murder was committed. It is a narrative of Tidewater Virginia. The love interest concerns a young man who was turned from his father's door as a result of his loyalty to the heroine. Altogether the book is a very interesting one and is well worth reading. It has several nice illnstrations; is nicely bound and contains 260 pages.

MORGANS CAVALRY. By Basil W. Duke. New York and Washington. The Neale Publishing Company.

The story of Gen. Morgan's life is supposed to be a romance rather than a record of bare historical facts. The narrative is written by Gen. Morgan's brother-in-law. The man described in the book took part in both the Mexican and the Civil wars, concerning which many incidents and adventures are included in the story. It is written in a way that makes it a very interesting book. There are several beautiful illustrations. The book contains about 450 pages and is beautifully bound and printed on nice paper.

CHARLES DICKENS A CRITICAL STUDY. By G. K. Chesterton. New-York; Dodd, Mead & Company.

This is a critical study of Dickens, intended as a general justification of that author. Each of Dicken's novels are treated in turn and a general estimate of the influence of that noted writer is given. The book is a very handsome volume of 300 pages.

THE CATTLE-BARON'S DAUGHTER. By Harold Bindloss. New York, Frederick A. Stokes Company, Publishers.

The basis of this story is the strife between the herdsmen and the homeseekers for the possession of the plains. The principals are Hetty Torrence who is loyal to her cattle-owning father; Larry Grant the leader of the homesteading boys; Flo Schuyler plays a very important part. The book has several very attractive illustrations. It contains 368 pages and is nicely bound, making a very nice book for the library.

YELDOWSTONE LETTERS. By Rube Shuffle, Valet. Written from the National Park to his sweetheart. Illustrated by A. G. Heaton. The Neale Publishing Company, New York and Washington.

A trip the author take through Yellowstone Park is described in the series of letters which he writes to his sweetheart. There are 6 beautiful illustrations. The book is very attractively written and is worth reading.

UNCLE CHARLIE'S POEMS. MIRTHFUL AND OTHERWISE. By Charles Noel Douglas. J. S. Oglivie Publishing Company, 57 Rose St., New York.

This book has been written by the author during the last ten, years all of which time he was in bed. The book is made up of verse, both bright and humorous and sound no note of the hardships through which the writer has past. The publishers state that almost the entire profit resulting from the sale will be given to the author. The book is beautifully bound and contains 160 pages.

CAESAER'S COLUM. A story of the Future. By Ignatius Donnelly (Edmund Boisgilbert, M. D.). Syndicate Publishlishing Company, Masonic Temple, Chicago.

This is a paper covered edition of a story of the future written a number of years ago. It is an attractive story and well written. It contains 367 pages.

A SPECIMEN SPINSTER- By Kate Westlake Yeigh. The Griffith & Rowland Press, Philadelphia.

Without any tendency toward bragging a maiden lady who has more money than she actually needs for her personal wants tells how she lives her life for others and the enjoyment it brings her. The author's style of writing is really attractive. The book contains 314 pages and is nicely bound with cloth.

HUNTINCTON, JR. A ROMANCE OF TO-DAY. By Edward Clary Root. With illustrations in color by Samuel M. Palmer. Frederick A. Stokes Company Publishers, New York.

This is a romance of today. Finding his father in trouble, both politically and financially, the hero drops his course in College and hurries to his rescue. The young man encounters many difficulties, many of which are serious, but by great will power and shrewdness wins out in the end. A double romance runs through the book and it is well written and interesting from beginniug to the end. It contains about 350 pages and its illustrations are well gotten up. The

publishers have done their work well.

THE YARN OF OLD HARBOUR TOWN By W. Clark Russell Author of "The Romance of a Midshipman," etc. Geo. W. Jacobs & Company Publishers, Philadelphia.

Walter Lawrence the hero of this story and the son of a retired Admiral, kidnaps the girl he loves and carries her off on a vessel where he holds her as prisoner with the hope of winning her love. Finally she pretends to be insane and at length is rescued by her father. Lawrence, overcome by his defeat, attempts suicide but is eventually nursed back to health by the girl he once loved. The entire novel is attractively written and makes very interesting reading.

THE CONFESSIONS OF A MONOPOLIST. By Frederick C. Howe, Ph. D. Chicago. The Publishing Company, First National Bank Building.

This story of getting something for nothing, explains the lust for franchises, mining rights, tariff privileges, railway control and tax evasions. All these things mean monopoly, and all monopoly is bottomed on legislation. The book is very attractively gotten up, printed on good paper and contains about 200 pages.

PHOTOGRAPHIC AMUSEMENTS. Including a description of a number of novel effects obtainable with the camera. By Walter E. Woodbury. New York. The Photographic Times Publishing Association. 39 Union Square.

The object of this little bonk is to describe a number of novel and curious effects that can be obtained by the aid of the camera, together with some instructive and interesting photographic experiments. The book is heavily bound with paper and contains about 125 pages.

THE PHILOSOPHY OF LIFE. By Charles Gilbert Davis, M. D., Chicago.

The Philosophy of Life is said to depict the action of cosmic force acting according to the law of evolution till man has made his appearance. The author points to man as a real manifestation of the cosmic mind. This is a book worth reading.

BY THE ETERNAL. A Novel by Opie Read. Special Illustrations. Chicago, Laird & Lee, Publishers.

Andrew Jackson and his chums are the chief pictures which this novel portrays. Other characters in the story are a jolly Irishman, a widow and a very pretty girl. While there may be some points which are not according to history, the book is said to be an interesting love story. It is nicely bound and its illustrations are beautiful. It contains 310 pages.

A NEW APPRAISAL OF CHRISTIAN SCIENE. By Joseph Dunn Burrell. Funk & Wagnalls Company. New York and London.

This little book is already generally well known, and while it is perfectly plain the book is hostile to the faith, contains a calm and reasoned view of its origin and growth. The book contains about 80 pages and is bound in cloth.

RECOLLECTIONS OF A GOLD CURE GRADUATE. By Newton Newkirk. Illustrations by Wallace Goldsmith. H. M. Caldwell Co. Boston.

This is the little volume of Humer's epigrams. The patient was an inmate of an institution where there were courses in alcoholism, morphine, opium, cocaine, tobacco, breakfast food habits, etc. The patient was treated for alcoholism. Characteristic drawings and marginal decorations illustrate the book. Altogether it is an interesting little volume. It is artistically bound.

The life story of E. H. Harriman, the man who re-organized the Union Pacific Railroad and created the "Harriman System" of Western roads, is at last told at length in the January Review of Reviews by Carl Snyder. Very little material of an authentic nature has heretofore been printed concerning this modern "Colossus of Roads," as the editor of the Wall Street Journal very aptly styles Mr. Harriman. The article by Mr. Snyder is both illuminating and convincing. It is based on a thorough study of the Western railroad situation, and of Mr. Harriman's relations thereto.

KING LEOPOLD'S AMERICAN AGENTS.

How He Endeavors to Influence Opinion Here.

Leopold has for two years made the Belgian embassy in Washington little less than his Congo lobby; and the Belgian minister, Baron Moncheur, has, in public and private, devoted himself unremittingly to the king's personal enterprise in Africa.

To the credit of the American press and people, it may be said that all these efforts have not met with much more of success here than in England, though an amazing amount of confusion has been created in the public mind of both countries—and confusion serves Leopold's interests only second

to corruption. In addition, now that American interest in the Congo has risen to a point that might well cause its autocrat fresh alarm, he has fortified himself by conceding 8,400,000 acres of the richest rubber country in the world to a French-American-English company whose American head is that astute financier, Thomas F. Ryan. Upon this powerful ally Leopold depends to prevent the consideration of the Congo situation in the coming Congress.—Robert E. Park in "The Blood-Money of the Congo," in the January Everybody's.

Abstracts of the Leading Articles of the Month.

The Treatment of Tracheotomy wounds in Diphtheria.—Jones (British Journal of Children's Diseases) says: Tracheotomy wounds in diphtheria usually heal up readily, being impervious to air after five to eight days, and quite sound in from ten to fourteen days. Certain conditions prevent this, and the results of non-union are extremely serious, both as regards the child's health and general welfare. A sinus left for six months after tracheotomy is very different to cure, the attempt involving great peril to the child's life; and the child grows up in most cases an inarticulate being, with all the tremendous drawbacks to such a condition. There are the trouble and risk attached to the permanent tube and increased liability to bronchitis and other respiratory infections. Those who have seen much of these cases report that they suffer more than other children from bronchitis, but are less susceptible to pulmonary tuberculosis.

It is highly important to endeavor to obtain early union of the wound as soon as possible after its *raison d'etre* the relief of obstruction has been fulfilled. The chief conditions which militate against this early union are:

(a) Continued presence of obstruction in the glottis. 1. Mechanical obstruction, due to organic changes in the vocal cords. These changes may be either a primary cicatrization, due to the diphtherial lesion or a secondary one, due to the irritation of intubation or other mechanical interference. It is obvious that while present this condition is an absolute bar to the closure of the wound.

2. Obstruction of nervous origin, due to spasmodic contraction of the cords. This is rarely a sufficient cause in itself to prevent healing, but it is an important factor in conjunction with other conditions. It can, as a rule, be diagnosed by the relief obtained by the administration of chloroform, and also by the fact that the obstruction is often purely an inspiratory one.

(b) Various conditions in the wound. 1. If the larynx be injured in the operation the wound often gives great trouble in the course of healing.

2. Slight septic infection of the wound is a deterrent rather than an absolute bar to union.

3. The character of the tracheal opening may exercise an important influence on closure of the wound. Thus, if the upper end of the opening be not cleanly incised at the time of operation, it sometimes happens that a portion of the antero-lateral wall of the trachea is able to fall back and act as a flap valve, partly shutting off the larynx. Again, if the wound be not median, and the tracheal wall be weakened by inflammation, it occasionally happens that the anterior wall falls back on to the posterior wall from its own weight whenever inspiration occurs, constituting another variety of flap valve. Therefore, the local condition of the wound should always be carefully inspected under a good light, so that such occurrences, if present, may be detected.

The main lines on which treatment of tracheotomy wounds should be based are the following:

1. Keep the wound as aseptic as is possible. It should always be covered with a double layer of aseptic gauze, which can be conveniently fastened at one corner to the sternum either by a spot of collodion or by a strip of Unna's zinc strapping. This is changed as frequently as necessary. It conduces to cleanliness of the wound and general comfort if the clothing be cut well away in a *decollete* fashion and made to open back and front. Sterilize all instruments and mops involved. This is essential.

2. The tube should be removed at as early a date as possible, more especially if any of the laryngral cartilages be injured. One can usually take out the silver tube after twenty-four hours, and if another tube be required later on for a few hours more a rubber one should be inserted.

3. Every effort should be made to calm and reassure the child, and in some cases the administration of bromide of potassium is of use.

4. The only contra-indication to the use of heroic measures if the wound does not spontaneously close is a septic and dilated heart.

The Dechlorination Treatment of Dropsy.—Bopd (Scottish Medical Journal) calls attention to the value of the dechlorination treatment of dropsy—a method which we owe to the French and which has had little vogue in this country. Widal pointed

out that in renal disease when sodium chloride accumulates in the body œdema results and albuminuria increases. On the other hand, when sodium chloride is withheld from diet the albuminuria diminishes and œdema may disappear. The author mentions an example of the value of this treatment. A man, aged 57 years, was admitted into hospital with swelling of the legs, the abdomen and the hands. For 25 years he had suffered from attacks of bronchitis every winter. Ten years before admission he first noticed swelling of the ankles. In the last four years he had suffered from frequent attacks of dyspnœa and had seldom been free from œdema of the legs. For three months he had been confined to bed. On admission there were bronchitis, general anasarca, ascites, considerable effusion into both pleural cavities, and dilated heart. The radial artery was thickened and the blood pressure was low. The urine was scanty and contained albumin, but no formed elements were found. A light diet and one and a half pints of fluid were given in the 24 hours. During the next six days the œdema slightly increased and the arterial pressure rose. Then a salt-free diet, consisting of bread made without salt, meat, fish, and fowl cooked without salt, and potatoes cooked without salt and eaten with fresh butter, was prescribed. The amount of fluid taken was kept at one and a half pints in the 24 hours. On the second day improvement began; the arterial pressure fell, and the quantity of urine more than doubled. Diuresis was maintained until all œdema had disappeared. The intake of chlorides on this diet was about two grammes in the 24 hours. There was an enormous excretion of chlorides which followed closely the excretion of water. The weight of the patient fell from 190 to 132 pounds and in 17 days he became free from the œdema, which had lasted for years. Cryoscopy showed a marked depression of the freezing point of the blood, indicating renal inadequacy. The blood contained 0.58, fluid taken from the legs 0.75, and fluid taken from the chest 0.74 per cent. of sodium chloride. The latter figures are excessive. The amount of chloride in the blood remains fairly constant. When chloride is taken in excess of the excretory powers of the kidneys it accumulates in the tissues and œdema results. When chloride is withheld from the diet the converse occurs; chloride passes into the blood and œdema disappears. Of course, other factors are concerned in the production of dropsy. Yet frequently, even in dropsy resulting from grave cardiac and renal disease, he has seen œdema disappear on withdrawing salt from the diet when all other means failed.

Periodic Vomiting with Acetonaemia, in Children.—Dickinson (British Journal of Children's Diseases) describes this condition, and discusses the various theories as to its causation. In the midst of perfect health, without apparent cause or error in diet, the child, who is usually of a nervous disposition, is suddenly seized with vomiting. This vomiting is produced by regurgitation without any premonitory nausea; the vomit is usually watery, sometimes alimentary or bilious; but when the latter is noticed, it means that the end of the attack is approaching. The vomited matter, first abundant, diminishes by degrees, so that at the end of the attack the stomach is empty. Attacks of this kind of vomiting happen several times a day, and recur with variable frequency. The whole attack lasts usually from two to four or five days, but is sometimes prolonged for two or even three weeks. Once at an end it leaves no after-effect, and health is re-established at once and without convalescence, the end being as abrupt as the onset. After a very variable interval—a few days to a few months—the attacks of vomiting are renewed with the same symptoms, and the illness may thus continue for years, disappearing completely about the time of puberty. Sometimes the attacks recur with striking regularity. Comby observed a case in which they were repeated regularly every month. The vomiting is always intractable, as at first. The symptoms which are associated with the vomiting are variable. Usually at the onset of the attack the child is prostrate, lies motionless in bed, neither crying nor groaning, its face pale and drawn, the eyes sunken, and the abdomen retracted. Very often there is constipation, appearing at the same time as the vomiting, rarely diarrhœa; the tongue is relatively clean or only slightly coated; the pulse is almost always accelerated, though some have noticed a rate of 50 or 60 a minute. The temperature does not regularly exceed 100.4 degrees, very rarely reaching 102.4 degrees; in exceptional cases it remains normal. Gastric pain is almost always absent, a point of diagnostic importance; when it does occur it is never at the commencement but only at the end of the attack, when the stomach is empty. Thirst is intense, but the child cannot drink, for the least quantity of drink is sufficient to provoke a fresh attack. The appetite is always retained. During the attack the breath has a distinct smell of acetone, sometimes so marked as to be noticed by anyone entering the room. The urine is scanty and shows a definite amount of acetone and often also of indican. Analysis should be made daily from the beginning of the attack, for although acetone is always found

in the urine it is not present throughout. But it must be remembered that an abnormal quantity of acetone may be found in various affections of the digestive system in children. The prognosis is almost always favorable. The only treatment that has any scientific basis is to give an alkali in large doses. Sodium bicarbonate is given by some in doses of 15 grains every two hours, by others in rather less quantity; but as to the real value of this treatment there is considerable doubt.

Pelvic Displacement and Pain in the Female.—Groves in the Bristol Medico-Chirurgical Journal says that the pelvic viscera are supported chiefly by the underlying pelvic floor. The pelvic floor consists of a muscular diaphragm composed in the main part of the levatores ani and their investing fascia, which actually attaches the viscera to the floor. The pelvic floor is adequately supported by its attachments to the circumference of the pelvis, but is weak in the mid-line, where it is perforated by the rectum, vagina, and urethra. The efficiency of the pelvic floor depends upon the union of its two halves in the mid-line. Displacements of the uterus, bladder, and vagina, apart from diseased conditions, depend upon a rupture, stretching, or thinning of this median raphe.

The adequate and rational treatment of these conditions consists in a repair of this muscular raphe, either in the perineum or by forming a new second line of muscular union between the vagina and bladder. The use of a pessary constitutes a reasonable second-best treatment, but this will only be possible when the gap between the edges of the levatores ani is narrower than the diameter of the pessary. When the pelvic viscera lose their adequate support by the pelvic floor, they hang upon their peritoneal "ligaments," and this causes pain by dragging upon the ovaries, tubes, and pelvic nerves.

Senile Warts and Epitheliomata Originating from them.—Walsh (British Journal of Dermatology) says that this condition of the skin—which has received a variety of names, such as "seborrheic warts" and "senile hyperplastic sebaceous gland tumors"—has been more or less carefully described by a large number of writers, such as Neumann, Barthelemy, Pollitzer, Unna, Brocq, Jarisch, and Dubreuilh. In these descriptions there is considerable diversity of opinion, both with regard to the typical histological architecture of the lesions and their true place in the list of skin affections. With a view of assisting in the solution of these problems the writer has studied eleven cases, which occurred not only in old people, but also occasionally in early life. It has been suggested that these lesions should be placed under the category of soft nevi, but this was not borne out in Waelsch's sections. The initial stage of the senile wart is an inflammatory condition of the underlying corium, the inflammation being most marked in the neighborhood of the hair follicles and sebaceous glands, and is seborrheic in nature. The name "senile wart" is unfortunate, as it is not in the true sense of the word a wart, but only a condition of acanthosis associated with the underlying inflammation, and is not necessarily senile, as it may occur in young individuals in association with other seborrheic indication. Instead of "senile wart" the author suggests the name of "acanthosis verrucosa seborrheica. He says that the malignant growth which not infrequently results from these lesions is caused by some unknown irritant acting on the altered epithelium.

Treatment of Diabetes Insipidus with Strychnine.—Ketly (Therapie der Gegenwart) found injections of strychnine nitrate extremely useful in three cases of idiopathic diabetes insipidus. The author commenced with 0.5 milligramme, increasing every second day by 0.1 milligramme to a maximum of 0.01 gramme. The patients were three men, from thirty-one to thirty-six years old. The subcutaneous injections were given daily for about a month in one case, and then the strychnine was given by mouth for three days. The amount of urine dropped from 8,000 to 1,500 c.c., and all the symptoms permanently disappeared. In another case the diabetes persisted after the cure of a syphilitic brain trouble under mercurial treatment. Under the strychnine injections the amount of urine declined from 11,500 to 3,000 c.c. in thirteen days, and the polydipsia vanished with the polyuria. This improvement was only temporary, however, as the symptoms recurred in two or three months. They subsided again under strychnine by the mouth. One female patient did not shew any improvement under strychnine.

Mechanical Effects of Experimental Mitral Stenosis and Insufficiency.—McCallum and McClure (Johns Hopkins Hospital Bulletin) give their ideas of the mechanical effects of mitral valvular lesions on the blood pressure of the femoral arteries, pulmonary arteries and veins and left auricle. Experimental mitral stenosis was produced on animals either by applying a screw-clamp with arms guarded by rubber tube, or passing a suture about the auriculoventricular ring, or by introducing a distensible balloon through the auricular appendage. Insufficiency of the mitral valve

was produced by means of a hook with a blunt point and inner cutting edge introduced through the left auricular appendage into the left ventricle where the valves and chordæ tendenæ may be cut as desired. The pressure was taken by cannulæ connected with mercury manometers adjusted in various parts of the circulatory system, and the one designed to register the pressure in the left auricle tied in the aperture in the auricular appendage. (1) In mitral stenosis the general arterial pressure is decreased and the pressure in the pulmonary arteries, veins and left auricle is increased. Pressure in the systemic veins is little if at all increased, unless there arises a dilatation of the right ventricle and relative insufficiency of the tricuspid valve. (2) In mitral insufficiency the general arterial pressure is decreased in the relation to the amount of insufficiency. The pulsation is not generally altered. Pressure in the pulmonary artery is relatively little altered; with extreme insufficiency it generally sinks with general arterial pressure; with slight insufficiency it rises, but not very high. Pressure in the left auricle is markedly increased and the curves show greater excursions which are due to the contraction of the ventricle. The systemic venous pressure is not greatly altered. From these experiments, and others in which the pressure was taken separately from different chambers of the heart and compared with pressure in different vessel-systems, they conclude as follows: There is less cause for hypertrophy of the right ventricle in pure uncomplicated mitral insufficiency than in mitral stenosis or mitral insufficiency associated with myocarditis, or other causes for inadequate work of the left ventricle. The cause in those cases in which the registration and the activity of the left ventricle are such that there is a constant residuum of blood in the pulmonary vessels greater than normal, consists in the rapid rise in tension during systole to a point above maximum normal tension requiring an excessive effort of the right ventricle. This is also increased by the reflux of blood from the left ventricle toward the end of systole; the effect of which is felt by the right ventricle before the end of systole. Even when there is no constant residuum of blood in the pulmonary circulation this hyperextension is transient due to the regurgitation toward the end of systole.

Amenorrhea Associated with Serious Eye Symptoms.—Gemmel (Jour. Obst. and Gyn. Br. Emp.) cites the case of a girl, age 16, whose menstrual periods were normal up to the time she went to boarding-school, when they ceased. In about one month she suddenly became blind in one eye. At the end of three months she was practically blind in both. This blindness was caused by hemorrhages into the vitreous. She was at this time put on treatment to bring on her periods and at the present time has regained the sight of one eye. The prognosis as regards the eye in this condition is not favorable, but if the menstrual period is not re-established it becomes still more grave, as repeated hemorrhages may cause permanent damage.

Labor Obstructed by Unruptured Hymen.—Chill (British Medical Journal) describes the following case which came under his care some time ago in North London. He says with an experience of over 3,000 labors during the last twenty-three years, this is the only example of the kind he has had, though similar instances are mentioned in obstetrical works. The patient was a young woman who had been married about a year. When summoned to attend labor had progressed for many hours, for the fetal head was well down on the perineum. The hymen was firm, rigid, and unyielding, and would not admit even the little finger. As this condition was obstructing labor, I made several incisions into the hard, fibrous material, after which delivery proceeded naturally. The perineum was slightly lacerated, but this was purposely left unsutured. The presentation was normal, but no complications followed, and the mother subsequently did well.

The Treatment of Pneumonia.—Fraenkel (Therapie des Gegenwart) maintains that in certain fatal cases of pneumonia the rapid pulse which is manifested is due to the effect of the toxins of the specific bacillus upon the nerve mechanism of the heart. The writer says he has used the infusion of digitalis in a few very severe cases, giving as much as 4 grammes in the twenty-four hours; but he prefers caffeine, as it is less cumulative, and he has had excellent results from its adoption, especially when given hypodermically. It is his practice to use it in cases where the pulse is at all rapid; and if not over 130 it may be expected to prove beneficial, although it does not alter materially the other symptoms. The author frequently uses camphor in addition as an auxiliary mode of treatment.

A Case of Bullet Wound of Pericardium, Pleura, Stomach, Liver, and Spleen —Splenectomy, Recovery.—Bird (Intercolonial Medical Journal of Australasia) says that the power to recover from the effects of very severe abdominal injury depends, after the nature of the injury itself, mainly on the rapidity with which the patient is brought under surgical supervision.

In this case only seventy minutes elapsed from the moment of the passage of the bullet to the time of starting the abdominal incision. There was increase of splenic dullness due to blood-clot and the ploughed-up spleen. Though there was no gas in the peritoneal cavity, a large irregular rent and some smaller tears were found in the stomach and sutured. The hole in the left part of the central tendon of the diaphragm was small and bled little, but at a point opposite the liver was much torn, and required gauze packing for the arrest of hæmorrhage. The patient made an entirely uninterrupted recovery.

Association of Ovarian with Uterine Fibro-myomata.—Taylor (Edinburgh Medical Journal) finds from reviewing the literature that fibroid tumors of the ovary existing alone or unassociated with uterine fibroids may form large tumors which give rise to symptoms of clinical importance. When ovarian and uterine fibroids exist the former are generally small and merely of pathylogical interest. Occasionally the ovarian tumor becomes larger and torsion of its pedicle is then liable to occur.

A Further Series of Cases of Congenital Obstruction of the Pylorus treated by Operation.—Nicoll (Glasgow Medical Journal) gives the result of operative interference in six consecutive hospital cases. One patient died from shock, the other five are alive and well. The immediate results were satisfactory in all the cases, but it was considered too soon to judge of their permanency. The operation performed in all six cases consisted in an application of the well-known V-Y method, so widely useful in plastic surgery in general. In four of the cases the V incision penetrated the muscular coats, only the pylorus being divulsed by means of a pair of forceps passed through a small separate gastric incision. In this "submucous" plastic operation the muscular coats were closed by a single row of sutures; in the other two cases the V incision was carried through into the lumen of the pyloric passage, and was closed (as a Y incision) by the customary two rows of the Czerny-Lembert suture.

The Registration of the Beat of the Left Auricle.—Minkowski (Deutsch. med. Wochenschr.) says that the pulsating cervical veins register very satisfactorily the changes in blood pressure that occur within the right auricle in cases of tricuspid insufficiency. As yet, however, there have been no satisfactory methods of studying the changes in form of the left auricle, though it is clear that these changes are of still greater importance from their intimate connection with mitral disease. Minkowski's method is as follows: A rather stiff stomach tube is used, with a lateral but no terminal opening. Over the end is slipped a rubber condom which is firmly tied with stout thread above and below the lateral window. The tube so prepared is swallowed and its other end then connected by means of a T tube with a rubber bulb and a manometer. By means of the bulb the tube is then inflated until the condom lies closely against the walls of the esophagus. The manometer will then register upon a revolving drum the changes in pressure at the window of the stomach tube. Soon after having passed the larynx the end of the tube will lie behind the aorta and the apparatus will register the changes in form of that vessel. Somewhat lower, 32-35 cm. beyond the incisors, the window lies behind the left auricle and will register the changes taking place there. As yet the method has chiefly a physiologic interest, but as the writer points out and illustrates by means of an instructive case, the method may well be of value in the diagnosis of obscure cardiac affections.

Mental Disorders of Pregnancy and the Puerperal Period.—Raw (Edinburgh Medical Journal) studied 102 cases of puerperal insanity with the following notes: Sixty-eight of the cases were placed in asylums at the end of three weeks, 24 cured, 8 died, and 2 remained under the treatment. Albuminuria present in 62 per cent.; in some of the cases it was purely transient; in others it remained many weeks. Of this 102 cases, 71 were cases of mania and 31 of melancholia, and the cases of mania recovered more rapidly than those of melancholia. The insanity of pregnancy generally develops between the third and seventh month when symptoms of moral perversion, melancholia and delusions of fear, suspicion and persecution. Insomnia is very troublesome and patients are often very destructive. In cases where heredity to insanity is marked, the prognosis is very grave.

Cases of Intubation of the Larynx in Diphtheric Dyspnea.—McCaul (Dublin Journal of Medical Science) gives the following advantages of intubation: Great diminution in the mortality compared with tracheotomy, especially during the first three years of life. After the sixth year tracheotomy is usually preferable. The absence of a wound in the neck. The rapidity with which it can be performed. The slight danger of subsequent pneumonia. The ease of performance compared with tracheotomy. The small amount of subsequent care required. The disadvantages of this operation are: Risk of dislodgment of the false membrane by the tube while

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A society has recently been organized in Vienna, says the Medical Record, which might with great benefit to the comfort and health of New Yorkers be imitated here. The purpose of the new Austrian body is the abatement of the dust nuisance in streets and public highways. Various proposed schemes for laying dust will be studied, and when though sufficiently practical will be given actual trials in the streets.

being inserted with danger of suffocation before tracheotomy could be performed. Danger that the tube may be coughed up and asphyxia result before it could be replaced. Difficulty of removing the detached membrane through the tube. If pneumonia develops it is impossible to keep the tube free from the viscid secretion, which thus increased the dyspnea.

Haematogenous Albuminuria.—Fox (The London Medical Lancet) says that nearly fifty years passed after the connection between albuminous urine, dropsy and kidney disease was established, before the fact was recognized that albuminuria was found in a class of persons who were not the subjects of kidney disorder. This class is usually among young men and boys. The urine is not of continuously low specific graviry, the albumen is often present only at intervals, such as succeeding a meal, following severe exercise or rising in the morning. No tube casts are usually found in these cases.

He says that E. A. Wright from his studies has arrived at the conclusion that this kind of albuminuria is due to a disorder of the blood, the outstanding feature of which is lessened coagulability. The proof of this is that if the coagulability is increased by the ingestion of calcium lactate, the albuminuria disappears. The calcium lactate is usually given in 15 grain doses. One dose is taken at bedtime, and the next dose two nights later. The urine is then examined and ought to show improvement.

He thinks that these haematogenous cases probably include the bulk of those hitherto described as "adolescent," "cylic," etc. The author thinks that this form of albuminuria must be distinguished from the rare albuminuria of long-standing without apparent disturbance of health. Here the albumen is nephrogenous and possibly comes from a limited lesion of one kidney. The possibility of using strontium and magnesium lactate is also suggested.

General Septic Peritonitis in Enteric Fever without Evidence of Perforation.—Watson (The London Lancet) mentions an interesting case in which a boy, aged 9 years, suffering from enteric fever, developed on the tenth day of his illness evidences of general peritonitis. Laparotomy was decided on. The abdomen was uniformly distended, hard, and tender all over, scarcely moving on respiration, and dull to percussion in the lower half on both sides. Temperature 102.6 degrees F. and pulse 160. Tongue brown and furred; patient very restless with facies hippocratia. Incision was made in the middle line below the umbilicus. The peritoneal cavity was found to be full of thin, white, odorless pus, with flakes of lymph on the intestines; there were no adeesions; the intestines were not much distended but were red and dull in places. Some enlarged tuberculous mesenteric glands were found. There was no free gas in the peritoneum, nor was there any evidence of extravasation of intestinal contents. Death occurred seven hours after the operatioh. At the necropsy search was made for evidence of perforation, but none was found, and the bowel held water. When laid open the small intestine showed several early typhoid ulcers in the lower two feet and some swollen Peyer's patches. There were no sloughs. At one point the base of an ulcer seemed to be near the peritoneal coat, but the peritoneal coat was not visible from within at any point, nor was there any adherent spot which suggested a closed perforation. The large intestine was not involved. The spleen was very markedly enlarged. The glands in the mesentery were tuberculous, but there was no evidence of recent activity or of rupture of any gland. Cultivations from the spleen and heart's blood gave pure cultures of the typhoid bacillus. It seems not unlikely, the writer of the article remarks, that this was a case of pure typhoid peritonitis, and had it been seen earlier might have been treated successfully.

Arthur P. Hitchens, M. D., succeeds J. J. Kinyoun, M. D., as Director of the Biological Laboratories of H. K. Mulford Co.

Dr. Hitchens has been connected with the Mulford Biological Laboratories for the past eight years, during the greater period of that time having had personal charge of the preparation of Antitoxins and Curative Sera. He is well qualified to conduct scientific work connected with the production of Antitoxins and Biological products.

W. F. Elgin, M. D., continues in charge and direction of the Mulford Vaccine Laboratories.

E. D. Reed, M. D., of Ann Arbor, Michigan, has been engaged to direct research work, particularly in pharmacology and physiological chemistry.

A Sheet Anchor in Pneumonia.

Two years ago I began to use Antiphlogistine in the treatment of pneumonia, and it has proved my "sheet anchor" ever since. My custom is to make daily applications, and by using it in this way I am able to hold the disease in check. Antiphlogistine reduces the inflammation without reducing the patients' strength, and owing to its many virtues, is strongly to be recommended as an adjunct in the treatment of pneumonia.

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A few cases follow:

Mrs. G.—Was called January 28, 1905. An examination proved lobar pneumonia in the upper lobe of the right lung. I applied hot Antiphlogistine and the cotton jacket. Next day the patient was doing well. I renewed the dressing daily for four days when it was discontinued, as the necessity for its use had passed away. The recovery was uneventful.

Mr. K.—Was taken ill April 12th, 1905, with his second attack of double pneumonia. I at once applied Antiphlogistine and a cotton jacket, and renewed the dressing daily. In two weeks he was sitting up, and he made an uneventful recovery.

Mrs. D.—A woman with a tubercular diathesis, was stricken with pneumonia of the right lung, Dec. 4th, 1905. Antiphlogistine and the cotton jacket were used as in the preceding cases. I discontinued my calls in twelve days, after a complete cure.

Mrs. S.—Was called Feb. 22nd, 1906, and found double lobar pneumonia. Applied Antiphlogistine, hot, then daily until the eighth day when the crisis was passed. Antiphlogistine was of inestimable assistance in this case.

Mr. A.—45 years old. I first saw the case April 22nd, 1906; found a double lobar pneumonia with pleurisy of the left pleura. I at once applied Antiphlogistine as hot as could be borne, and used it daily for twelve On the sixth day the evening temperature registered 105.8 degrees. The temperature dropped by lysis and he made a good, although slow recovery.—S. W. UMSTOT, M. D., Hagerstown, Md.

Physicians who are interested in the study and legitimate practice of the physical (drugless) therapeutic methods, notably electro-therapy, photo-therapy, mechano-therapy, hydro-therapy, suggestion and dietetics, are invited to join the American Physio-therapeutic Association. Address the Secretary, Dr. Otto Juettner, No. 8 W. Ninth St., Cincinnati, Ohio.

The officers for the ensuing year are:

President: Dr. H. H. Roberts, Lexington, Ky.

Secretary: Dr. Otto Juettner, Cincinnati, Ohio.

Treasurer: Dr. Geo. H. Grant, Richmond, Ind.

Executive Council: Drs. W. F. Klein, Lebanon, Pa.; Jas. Hanks, Brashear, Mo.; J. W. Unger, West Point, Miss.; Chas. S. Northen, Talladega, Ala.; R. W. Gibbes, Columbia, S. C.; S. J. Crumbine, Topeka, Kan.; A. L. Blesh, Guthrie, Okla.

The usefulness of good Hypophosphites in Pulmonary and Strumous affections is generally agreed upon by the profession.

We commend to the notice of our readers the advertisement on page xviii of this number. "Robinson's Hypophosphites" is an elegant and uniformly active preparation; the presence of quinine, strychnine, iron, etc., adding highly to the tonic value.

Northwest Texas Medical Association.

At the annual election of officers of this society held in Texarkana, November 22, the following were elected: President, Dr. Preston Hunt, Texarkana; First Vice-President, Dr. W. L. Baber, Winnsboro; Second Vice-President, Dr. H. Taylor, Marshall; Secretary, Dr. R. H. T. Mann, Texarkana; Treasurer, Dr. C. A. Smith, Texarkana.

"Salicylates act at least in two ways in the body. In the case of acute articular rheumatism, in which they are supposed to exercise a specific influence, they probably act deleteriously upon the micro-organism which is responsible for the malady, whereas in the case of chronic rheumatism or gouty conditions depending upon diathetic states they produce some influence upon metabolism or the oxidation processes in the body which we do not understand, but of which we are therapeutically cer-

tain."

It is of the greatest importance therefore that the salicylic acid administered should be from natural sources and not the synthetic product. Physicians can rely on the fact that all the salicylic acid in Tongaline is made from the pure natural oil of wintergreen and that it does not possess the disturbing effects of the salicylic acid made from coal tar.

Otitic Eztra-dural Abscess, with Paralysis of the Fifth Cranial Nerve and Double Optic Neuritis.—Barr (Glasgow Medical Journal) describes an interesting case of extradural abscess consequent upon otitis media, with cholesteatoma: in a boy of seventeen years.

The patient came under treatment on account of headache—chiefly frontal, partly occipital, at times very severe—with chilliness, recurrent sickness, and vomiting, of about ten days' duration, together with diplopia and right strabismus of five days duration. When first seen the boy, though evidently ill, was bright and intelligent. Temperature 98 degrees F., pulse 70. There were no drowsiness, no paralysis, save of the right external rectus oculi, and no symptoms nf mastoid trouble.

The radical mastoid operation was performed. The bone was found to be sclerosed, the antrum small, and filled with cholestina. The dura over the tegmen tympani was exposed for diagnostic purposes, and found to be healthy. Further back, towards the region of the lateral sinus, the bone was softer. In order to follow this up, the incision was prolonged horizontally backwards, and the softened bone removed, exposing the groove for for the lateral sinus, where, between the bone and the dura forming the sinus, a small abscess was discovered and evacuated. The sinus itself was covered with granulation tissue, but as the interior of the vessel seemed free from thrombus, it was not opened into.

As a result of the operation, the headache at once disappeared, the pupils, before unequal, became equal, and the paralysis of the sixth cranial nerve began to show signs of lessening, though it did not entirely disappear for three months. There was double optic neuritis before the operation, presenting the usual signs of this condition. After operation this became worse, and the appearance of the fundus raised suspicions of albuminuric retinitis. The urine, however, showed no abnormality at any time. After an interval of four months the optic neuritis gradually passed off, and the vision became perfect.

The author directs attention to three points of interest:

1. The absence of symptoms pointing definitely to extradural abscess in any situation.

2. The intense optic neuritis passing off, but tardily after the relief of pressure.

3. The paralysis of the sixth cranial nerve, which, he suggests, may have been due to a localized leptomeningitis, extending from the site of the abscess in the direction of the nerve-trunk of the sixth in its long course from the lower border of the pons of the optic foramen. This limited leptomeningitis must have been quite different from the usual basal leptomeningitis consequent upon middle-ear infection.

The Further Development of the Operations for Highly Situated Cancers of the Rectum.—Kraske (Archiv. fur klinische Chirgie) says that it is a matter of more than passing interest to note what the father of this kind of surgery has to say of late developments in a field of which he was the pioneer. The early operators did what is known as a combined operation, when having commenced behind, they found it impossible to proceed any further and as a last resort opened the abdomen in an effort to complete the work. The mortality which attended such operations was naturally very high and discouraging, to say the least. Today the combined operation should be taken to mean exactly the reverse of what has just been stated, namely, the abdomen must be first opened, and the work must be supplemented through the lower and posterior route. There are numerous reasons why this method of proceedure must be followed; the principle ones are that asepsis is conserved, and further, that many cases cannot be correctly judged as to operability until the abdomen has been opened. In France it has been the custom for sometime to divide the bowel and at once make an artificial anus before proceeding to extirpate the growth. The author is not decidely averse to such a proceedure in every case; however, he does not do this when there is the slightest possibiliiy of rejoining the divided intestine and re-establishing the natural passage. For him the normal procedure must always be a resection rather than an amputation. The author first opens the abdomen, then cuts the gut in two, ligates as many vessels as possible from within, pushes the mass down and completes the work through a sacral opening after closing the abdomen. Then, as a last step, he pulls down the upper piece of the intestine and sews it to the lower. This is a long operation, and hence dangerous, as far as the anaesthetic is concerned; hence he advises that spinal aneasthesia be used. It is remarkable that

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this operation has proved decidedly more dangerous in men than women—something which is explained by anatomical conditions.

Pirogoff's Camphor Treatment for Erysipelas.—Mayer (British Journal of Dermatology) is not in sympathy with a statement appearing in a former number to the effect that we do not possess a reliable method for influencing erysipelas. He has used Pirogoff's method for sixteen years, and thoroughly believes in it. Pirogoff recommends that doses of 0.15 gr. of camphor should be given every hour, or every ery two hours, and that the patient should be made to sweat freely by the administratinn of hot tea. The usual methods of external treatment are also employed.

Cases of Hernia in Which Loops of Bowel Were Strangulated in the Same Sac.—Pringle (Edinburgh Medical Journal) reports a number of cases of this character. The author finds the condition one of great importance, the possibilities being as follows: (1) The several loops outside the abdominal cavity may become gangrenous apparently without involvement of the connecting loop, and may result in an artificial anus with multiple lumina.

(2) The internal connecting loop or loops may become gangrenous without gangrene of the external herniated loops. (3) The herniated loops, together with the connecting loop, which, blocked at both extremities, cannot empty its contents forward or backward, and for this reason, as well as on account of the fermentative changes within its lumen, is liable to have its entire length gangrenous, however favorable the appearance of the herniated loops may be.

"Wine is not valued alone for its alcohol; in fact I am inclined to believe that is the least valuable part of wine from a medical point of view," says Dr. H. W. Wiley in American Medicine." It is not alone the alcohol which the physician wants to give his patient, but the other substances which are so characteristic of wine, and which are produced along with the fermentation of the grape; namely, tannin, tartaric acid, glycerine, ether, aldehydes, salts and coloring matters. The ports, sherries, sweet wines and other forms of wine which are so often prescribed by physicians are practically all, to a certain extent, artificial bodies, that is, they are not pure, untreated juice of the grape. I am inclined to believe that a turning, on the part of the druggist and the physician, to the use of pure wine would be on the whole distinctly advantageous to the patient."

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On the Sensibility of Different Organs and Tissues.—Lenuander (Edinburgh Medical Journal) recognizes the general law that "all organs innervated solely by the sympathetic nerves or by the vagus (beyond its recurrent branch) are devoid of four forms of sensibility, namely, to pain, to pressure, to heat and to cold. All the sensations usually assigned to them have their seat or the origin in the nerves of the parietal subserous tissue. In prolonged operations inside the abdominal cavity he withholds the general anæsthetic during the period that the viscera are being dealt with, only administering it for the preliminary incision and for the closure of the wound. The strength of the cocaine he uses varies from 1 in 200 to 1 in 800, with a distinct preference for the weaker solutions. Abont 2 drops of adrenalin solution is added to 10 c.c. of the cocaine solution. In the course of oparating on the limbs, Lenuander has made the interesting observation that intraneural injections into the great sciatic nerve are painful if the limb is extended, but if the knee is fixed so as to relax the nerve they are unattended with pain. The author sums up by saying that the body is enclosed in an envelope (the skin) which reacts almost everywhere to pain, pressure, heat and cold, although its reaction is of unequal intensity at different points. The sensibility of the muscles and aponeuroses is comparatively less acute. The parietal pleura, the parietal peritoneum and their subserous layers, the periosteum and the synovial membranes of joints, all possess marked sensibility to pain, but they do not react to pressure, heat and cold. The most painful manœvres are dragging movements, laceration, pressure of serous cavities or periosteum against resistent structures, such as aponeuroses, ligaments or bones. On the other hand, bone, cartilage, the brain, the lungs, the heart, the blood vessels (when denuded of the surrounding connective tissue), the thyroid gland, the liver, the spleen, the pancreas, the renal parenchyma, the internal genital organs of the female, the parts of the testis covered by serous membrane, do not appear to possess any of the four forms of sensibility. The author thinks this is less absolutely proved regarding the stomach, the intestinal canal and the gall-bladder. The opinion that these organs become painful when in a pathological condition, *e. g.*, when inflamed, the author considers untenable.

Treatment of Myopia.—At the International Medical Congress, held in April, 1906, at Lisbon, H. Sattler (Klin. Mon. fuer) drew the following conclusions from his clinical experience:

1. Full correction may check the progression of myopia if a sufficient distance for near work is maintained and a too great inclination of the plane of fixation is avoided.

2. In young persons full correction is tolerated in myopia of 10 diopters or more.

3. If a progression should take place even then, it would generally be slight.

4. Also in high degrees of myopia a reading distance of at least 20 to 25 cm. must be secured by corresponding correction.

5. A timely proper correction seems to be a protective against the dangers by which a myopic eye is threatened.

6. Insufficiency of convergence is generally averted by full correction.

7. Muscular asthenopic troubles require tenotomy of the external recti in exophoria of any amount of prisms besides full correction.

8. In very high myopia (18 diopters or more) up to the end of the third decade of life the extraction of the transparent lens with the concave, lance-shaped knife is to be recommended.

9. Primary extraction surpasses primary discission by a small number of interferences, more speedy restoration of good vision, greater safety as to loss of vitreous, avoidance of increased intraocular pressure, and apparently less danger of post-operative detachment of the retina.

Dechloridation in Dropsical Conditions.—In an editorial article in the Edinburgh Medical Journal for September, 1006, the following statements are made: In Bright's disease, attended by œdema, the permeability of the kidneys to salt molecules is largely abrogated, hence salt retention, with dropsy, ensues. The value of a milk diet, long known empirically, is now believed to depend largely on its comparative poverty in salt, three and a half pints containing about a drachm instead of the 200 or 250 grs. which custom adds to ordinary food. But, by excluding salt from the bakehouse and kitchen, an average mixed diet, including 6 or 7 oz. of meat along with cereals, will contain only some 15 or 20 grs. of natural salt, and hence may be better tolerated by a nephritic patient than the "bland, unirritating" milk.

It matters not why the salt is retained in the body—dropsy will result. In heart disease the retention is caused by stasis of the blood; we combat this by cardiac tonics, while by limiting the intake of salt we lessen the tendency to hydration of the tissues. Many of the problems connected with salt retention—its relation to uræmia for example—are by no means worked out; but enough has been said to show that in de-

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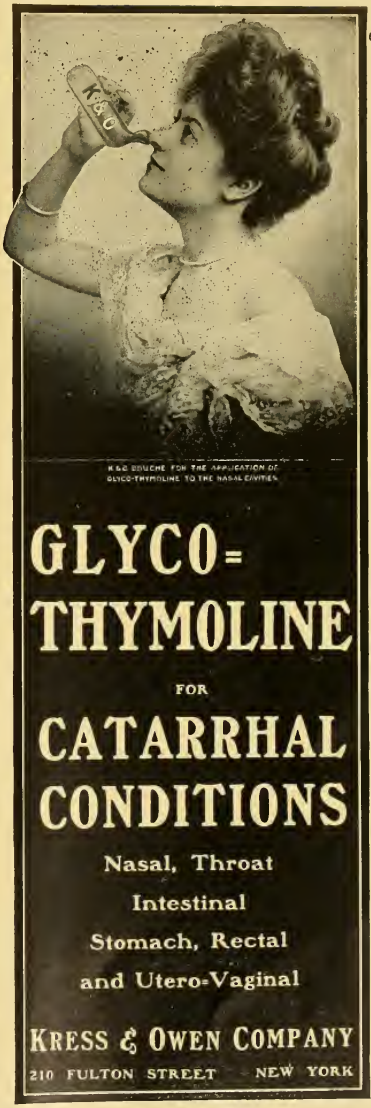
chloridation we have a promising line of research and treatment which is deserving of more attention than it has received, in this country, up to the present time.

A Family Infected with Syphilis.— Grove (Brit. Med. Journ.) reports the case of a girl, who had contracted syphilis two years before and had had but a few months' treatment, gave birth to an illegitimate female child, which developed universal pemphigus a few days after birth, but recovered. The girl returned to service, leaving the child to the care of her mother, who understood the disease and its contagiousness. Mercurial treatment was not continued more than about six months. In December, 1905, the child had some trouble around the anus and a sore mouth, but it did not come under treatment till January 11th, when condylomata were found around the anus, and some stomatitis; there were no cracks around the mouth and the tonsils appeared clear. At the end of January the grandmother came under treatment for an indurated sore on the right side of the lower lip, a sloughing ulcer on the right tonsil, a mass of hard glands beneath the jaw, and bad stomatitis. The sore on the lip had begun about a fortnight before, and she was certain the sore throat had begun at the same time, perhaps before. Within ten days all doubt as to diagnosis was set at rest by the appearance of a universal copper-



Imitation or Substitution

A physician in speaking of Glyco-Thymoline imitations, remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get better." "Imitations are at best poor substitutes and I never use them I want the results that invariably follow the use of Glyco-Thymoline—genuine." Sole Agents for Great Britain,

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colored rash inclined to scale. Upon this a daughter, aged twelve, was brought up with a sore throat, which had continued for three weeks without improvement. On the left tonsil was an extensive ulcer with irregular edges, part of it covered with a washleather-like slough, with a mass of glands beneath the sternomastoid. Within a few days she developed a rash in color and extent exactly like her mother's. There was no other external sore.

When the girl's rash developed, a younger brother, aged seven, was sent up with a similar sore throat on the right side. In him also a rash developed at the end of February, but of much smaller extent, almost entirely confined to the chest and back in a few isolated patches. Except the tonsil, there was no other sore.

The baby had been lately fed by spoon, and, after the customary manner of primitive nurses, the food had first been tasted. This would be done more than once during a meal. Both the grandmother and girl had fed the child in this way; the boy had not, but there is the possibility that he used the spoon unwashed.

Each of these patients seemed to have primary sores on the tonsils—an unusual situation—the grandmother having also a coexisting one on the lip.

The point especially to be emphasized is the age of the child—nearly eighteen months—when she infected others, and therefore the necessity for lengthened treatment in these children and increased watchfulness for the sake of others.

By the end of April all obvious signs of the disease in all three had disappeared.

Phthisical and Non-Tuberculous Males.—Rivers (British Medical Journal) brings out a number of reasons why an hereditary causal relation to phthisis may be assumed in chronic mouth-breathers and those of deficient physique:

1. Both conditions prevailed to a much greater extent among consumptive males, quite independently of their disease, than among a comparable series of non-tuberculous men.

2. Whereas, some causes of mouth-breathing, as also physical build, are known to be hereditary, a family history of phthisis is much more often given by those who are mouth-breathers or of deficient physique, whether they be healthy or phthisical, than by others.

3. The physique incidence of mouth-breathing in phthisical subjects probably differs from that in the non-tuberculous.

4. Consumptives of a naturally good height-weight ratio fall ill, on an average, at a later age than do others.

Chronic Bronchitis and Adiposity.—Sutherland (Edinburgh Medical Journal) sums up the changes in fat people in whom bronchitis develops as follows: (1) Vascular obstruction from increased peripheral resistance in fatty tissues. (2) Cardiac weakness from deposit of fat about the heart. (3) Pulmonary obstruction from excess of carbonic acid in the blood. To produce a cure the first and most essential procedure is to remove the excess of adipose tissue. In a short time the chronic wheeze will disappear, also the shortness of breath, and the ability to walk up-hill comfortably will be increased. For the remainder of the patient's life his meals must be moderate in amount, the carbohydrate being notably small.

Gangrene of the Skin.—Nobl (Austrian Cor. Med. Press & Cir.) showed the members of the Gesellschaft der Aerzte a patient, æt. 20, who about the end of May last year came to hospital complaining of a burning red vesicular rash on the left side of the thorax. The vesicles ranged from the size of beans to a fine miliary with red areola at the base. Twenty-four hours after the contents of the vesicles changed to a gluey consistence leaving a fibrinous scale which soon assumed a gangrenous appearance. Hysterical symptoms accompanied the eruption, such as hemi-anesthesia on right side of thorax and face; a slight pressure on the mammæ gave great pain. A few days later the eruption re-appeared on the opposite side extending down the arm and accentuated in the armpit, which became confluent, this time leaving behind a glossy, moist, necrotic centre.

On June 7th she was transferred to the Stephanie hospital, where a new outbreak of the rash appeared. Fourteen days later she was dismissed with deep scars on the body where the vesicles had been.

Three weeks later she returned with the rash more widely diffused over the left side and right leg. She was subsequently kept under close supervision with no better results; the rash still repeats itself, leaving large confluent gangrenous patches on arms, breast and shoulders.

There is nothing in her history worthy of note except an accident which occurred to her while cleaning a garment, when a needle ran into the palm of her right hand, and was removed in fragments. This accident occurred three years before the first appearance of the rash, and can hardly be connected with the eruption. Speigler and Weinlechner thought the origin of the rash was artificial in nature.

He stated that every possible care was taken to eliminate this factor, and thought

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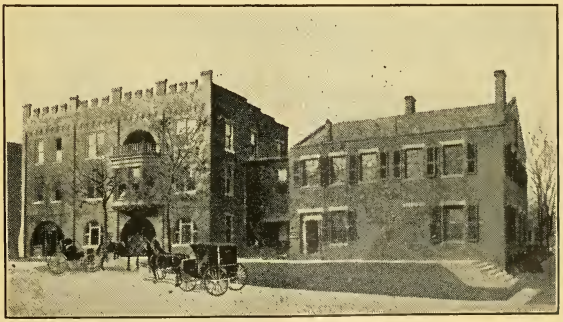

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with Kreibichs that the morbid origin was an angio-neurotic inflammation.

On the Etiology and Treatment of Eclampsia in the Puerperium. — Liepmann (Zentr. f. Gyn.) considers the causes of eclampsia with reference to the theory of an intoxication, produced in the placenta, and combining with cells in the kidneys, liver and brain. The explanation of eclampsia as due to such a poison is comprehensible during or before labor, but where the attacks occur after confinement, the explanation is not so simple. He says that in these cases the liver has probably been able to retain the entire amount of the poison, but is unable to neutralize it. In the course of the puerperium, the non-neutralized toxines enter into the maternal circulation and if the individual is susceptible cause the onset of eclamptic symptoms.

Giving as illustration, two extremely severe cases of eclampsia, in both of which the patients were saved by proper treatment, Liepmann emphasizes the importance of working tirelessly even in apparently hopeless cases. The result in the Charite Clinic, in Berlin, shows how much can be done in the treatment of this condition. The treatment is directed toward counteracting the effect of the poison upon first, the kidney; second, the heart; third, the brain.

1. The kidney can be helped by the subcutaneous injection of physiologic salt solution 2000 to 4000 c.cm.; also by giving diuretin, 15 grains, three times a day.

The heart can be stimulated by camphor oil and caffeine given hypodermically.

3. The brain symptoms, such as coma and shallow respiration, can best be alleviated by artificial respiration continued for days at intervals of one-half hour; during the pauses, the patient should be sponged off with cold water or put in a cold pack.

Chloral hydrate forty-five grains, given by the rectum, alleviates the convulsions. In one of the cases narrated by Liepmann, the patient's temperature had risen to 39.4, the pulse was 148, and the patient was comatose, yet in spite of this a good recovery was made.

The Violation of Courvoiser's. — Moynihan (The Edinburgh Medical Journal) gives the following exceptions to Courvoiser's Law, which he quotes thus:

"In cases of chronic jaundice due to obstruction of the common bile duct, a contraction of the gall bladder signifies that the obstruction is due to stone; a dilatation of the gall bladder, that the obstruction is due to cause other than stone"

Exceptions:

1. Where there is a stone or a stricture in the cystic duct causing hydrops or empyæma, together with the acute impaction of a stone in the common duct.

2. Where there is a stone in the cystic duct pressing upon the common duct.

3. Where there is distension of the gall blacder by an acute inflammatory process, with obstruction of the common duct by stone.

4. Where there is chronic induration of the head of the pancreas, with a stone in the common duct.

5. Where there is malignant disease of the common duct at any part of its course, or cancer of the head of the pancreas, and a chronic sclerosing cholecystitis.

After making full allowance for all these conditions, it cannot be denied that the validity of the law is established in at least 90 per cent. of the cases met with in practice. In the remaining 10 per cent. there is rarely a difficulty in diagnosis when the other symptoms are passed in review.

Internal Derangement of the Knee-Joint.—Thomas (Liverpool Medico-Chirurgical Journal) says that if a joint which has been previously normal suddenly locks as the result of injury, the most probable cause is a damaged cartilage, and the site of the greatest pain indicates whether it is the internal or external cartilage. If the limb be seen in a locked condition some inequality will generally be found along the margin of the semilunar cartilage—either a slight prominence due to the projection of a fractured piece, or more commonly a depression resulting from the damaged portion having swung into the joint. In examining for this condition the patient's lower extremity is placed across the surgeon's two knees.

Puerperal Eclampsia. – Blair (Liverpool Medico-Chirurgical Journal) mentions the toxemia theory of puerperal eclampsia as the most modern. This has for its basis the assumption that a toxin or a series of toxins manufactured by mother and fetus, and not eliminated in sufficient quantity by the kidneys, is the chief cause of eclampsia.

He says that the mortality is from 18 to 42 per cent. for the mother and 50 per cent. for the children, and it occurs probably once in 330 labors, in the United States in 260 labors, and is more frequent in cases of illegitimacy. It is commonest in primiparæ, in cases of protracted labor, in women of neurotic temperament, and in multiple pregnancy. Usually the onset is from the eighth month to the end of pregnancy, though it may occur at any time from the beginning of pregnancy and during the puerperium. Prodromal symptoms are albuminuria, visual disturbances, vertigo, headache, drowsiness, depression and epigastric pain, low specific gravity of the

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urine, jaundice, and vomiting. The latter when it comes on late in pregnancy is always suggestive. The attacks themselves are characterized by a preliminary stage in which there are convulsive movements of the face, head, arms, etc., which last for a few seconds to a minute or more, followed by a tonic stage in which the patient becomes rigid with the head drawn backward and the body in the posture of opisthotonos. Respiration ceases. This stage lasts from fifteen to thirty seconds, and is followed by a clonic stage of general convulsive movements. The coma becomes more profound as the fits increase in number, the pulse becomes weak and intermittent, and the temperature has a tendency to rise. It can thus be distinguished from epilepsy, in which there are no eclamptic prodromata, nor is there a steady increase in temperature; from hysteria, characterized by the rationality of the convulsive movements, the absence of respiratory spasm, the passage of larger quantities of urine; from alcoholic delirium and from disturbances of the central nervous system. Prophylaxis consists in the adoption of every measure which tends to promote the general health. Special attention is paid to emptying the bowels and the proper function of the kidneys. The

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author is strongly in favor of morphine given hypodermically and the use of saline solution either into the areolar tissue or by the bowel or by transfusion. Chloroform is rejected as a routine measure, though it may be given occasionally to relieve spasm. Chloral hydrate is urged in large doses. Lavage of the stomach and hot and cold packs are also advised. Emptying of the uterus is considered in case other methods fail to stop the fits.

Zinc Chloride As An Escharotic.—Hayes in the British Medical Journal mentions the case of a patient who, when fifteen years of age, had some "kernels" behind the right ear, which were treated at the local dispensary and painted with iodine. After some years the swelling formed an abscess at the angle of the jaw, which was lanced but it never healed. After some years a small, hard lump formed over the front of the angle of the right jaw, which broke out also and partially healed. She had been treated at various dispensaries and hospitals without permanent benefit. When first seen by the author the entire pinna of the right ear was covered with spongy, grayish, ulcerative plaques, almost confluent. The part between the ear and mastoid process was swollen, red, and glossy. There were many ulcerated spots in front of the ear and behind and underneath the jaw. The cheek was livid and studded with small nodules and pimples, some covered with scabs. The author applied the solid stick of zinc chloride to each of the ulcerated areas, and a strong solution ot 30 per cent. to the pimples and nodules in the face, then a free dusting of flour, and over this a covering of absorbent cotton. The doctor directed that a poultice of linseed meal should be applied after twenty-four hours and continued daily until the next visit, and was glad to find that the treatment effected an improvement. The parts looked healthier and less inflamed. The patient visited him weekly for twelve months. The ulcers covering the ear and those that subsequently developed cleaned and healed rapidly by a weekly application as above described, and at the end of the year the ears, neck, cheeks, and the whole area affected present a perfect, healthy appearance, with very little deformity. He writes that he does not know of any of the escharotics which produce such a lively, healthy reaction, and the effects ot which heal so satisfactorily, as chloride of zinc.

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The Treatment of Tapeworm.—Fowler (British Medical Journal) has obtained very favorable results with the following treatment:

The patient is put in bed, and for two, three, and in some cases, four days, is given a diet consisting of beef-tea, two pints; Mason's essence, one tin; two rusks; and port wine, four ounces. During the same period the patient takes tabloids of cascara sagrada (two grains) three times a day. On the fourth day (usually) at 5 a. m., haustus sennae co., one ounce; at 9 a. m., a capsule containing fifteen minims of the extract of male fern; at 9:15, ditto; at 9:30, ditto; at 9:45, ditto; at 11 a. m. haustus sennae co., one ounce. If by 1 p. m. the worm has not been passed and the head found, a second course of treatment with male fern at intervals of fifteen minutes is begun; to be followed in an hour by a purgative draught. If the head is not found, a third course of treatment is prescribed. It is rarely advisable to continue the treatment beyond this without an interval of a day, as the patient may be somewhat exhausted. The chief points of difference between this and other modes of treatment are: (*a*) Complete rest in bed; (*b*) prolonged period of restricted diet; (*c*) giving the drug in divided doses, tuus making sure that it will not miss the worm, and also avoiding the nauseous taste of the drug by giving it in capsules; and(*d*) searching for the head of the worm. In twenty-two cases the head was found in seventeen, and a cure effected in two more—86 per cent, in all. The male fern appeared to be just as effective against taenia mediocanelleta as against taenia solium and bothriocephalus latus.

The Etiology of Eczema.— (The London Practitioner) summarizes the various phases of the diseases as follows:

(a) The initial erythema; transient, sometimes absent.

(b) The papulovesicles and the patches they form.

(c) The itching, burning, and the secondary effects of rubbing and scratching.

(d) The oozing and the formation of a crust.

(e) The stage of dessication, desquamation, and healing.

The clinical picture varies in different individuals, owing to diversity of conditions, such as location of the lesions, type of skin affected, and the existence of a previous pathological condition of the skin. A precise deffinition of eczema is impractical but he describes it as a "non-contagious superficial inflammation of the nature of a catarrh."

There are at present four opposing theories with respect to the nature and cause; viz.. (1) that it is parasitic; (2) that it is due to a variety of irritants, internal and external acting in a predisposed individual; (3) that it is due to a nerve derangement, (4) that it is not a disease, but simply a cutaneous reaction to irritants i na predisposed individual, in other words, a symptom.

The parasitic theory he says will require more evidence in its favor before it can be accepted.

The second, or toxin theory, the writer divides into cases from external irritants, such as trade eczemas, from toxic plants, sugar, antiseptic dressings like iodoform, and various drugs. In these the toxins act at first directly on the skin, causing a dermatitis, the clinical evidence of the reaction of the skin. This theory is open to adverse criticism by the fact of recurrences after the irritant has been removed. The second class, or those from internal toxins, originate from tozins in the blood, usually from the alimentary tract, and they have long been known to cause urticaria and certain erythematous eruptions. Once the eczematous habit has been established, various food toxins and the products of imperfect metabolism can readily produce a new outbreak. The gouty, diabetic, rheumatic, scrofulous diatheses, and obesity may all be predisposing factors. The nerve theory, too, is simply a predisposing factor, and frequently aggravates, but no actual changes have been demonstrated in the peripheral nerves.

Brocq, of Paris is one of the theory that it is a symptom, not a disease; a reaction, through the nervous system, from internal irritants, such as, food toxins, reflex irritation from uterine derangements, asthma, etc.

The writer says that all authors agree that there must be predisposition or idiosycrasy on the part of the individual. Age, sex, race and climate have little influence. Heredity may predispose in so far as an enfeebled condition of the skin or health. The problem, however, is unsolved, he advises to keep an open mind on the subject.

The Psychic Cause of Melancholia.—Albrecht (Monatsshrift fuer Psychiatrie und Neurologie) reviews the teaching of authorties on this subject and analyses 55 personally observed cases in relation to their possible psychic origin, finds hereditary influences in 19 cases, 34 per cent; phyical causation in 3 cases; mixed causation in 5 cases and pure physic causation in 31 cases or in 56 per cent. of the total number analyised. He finds the harmful physic causation to be, in accord with general experience, never due to exaltation (pleasure-anger) but always to depressive affects, such

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as fright and grief.

The writer's conclusions are as follows:

1. Psychical causes play a very important role in melancholia.

2. In melancholia only depressive affects are to be considered as psychic causes; for the most part chronic affects (grief, sorrow) in a small number of cases, also acute depressive affects (fright) are the cause.

3. Psychical causes work in the main through bodily influences which in depressive conditions occur chiefly in an irritation of the vasoconstrictor nerves; after longer duration the resulting poor blood supply may lead to malnutrition.

4. The vasoconstrictor irritative condition and nutrition disturbance are in a number of cases of melancholia the predominatting symptoms and develop chiefly in those melancholias of psychic causation only as an increase in intensity and duration of the so-called normal depressive affects.

5. The vessel-nerve and the nutrition disturbance are pernicious conditions equalizable and amenable to treatment. With the control of the vasoconstrictor conditions (opium, baths) fear, the most important psychic symptom of melancholia, also disappears.

6. The actual underlying change in the cortex in melancholia is not known. An analogous conclusion from the observation of visible vessels, as well as our therapeutic experiences, causes one to think, that here also a vessel-nerve disturbance plays a part, in the sense of vessel spasm.

7. The greater frequency in women is due in the first place to the greater sensitiveness of the vaso-motor system; on the other hand, psychic causes may prove especially potent at the change of life, at which time, normally, various irritations of the vaso-motor system from the genital organs are observed. In this sense this period of life affords a certain predisposition.

8r Hereditary influence as a causative moment is not nearly so frequent as the foregoing factors.

The Wonderful Capacity of the Brain for Vicarious Working.—Anton (*Monatsschr. Psych. u. Neurol*) says that oftentimes

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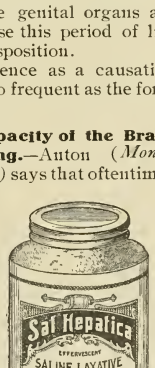

after great loss of brain substance one is unable, when many years have transpired, to detect any functional disturbanre. The nervous system of low organisms can regenerate parts, but this power is lost in the more highty organized. However, there is in the latter a wonderful power of adaptation, in that if a part be lost another part will take up its function, Case: A highly cultivated gentleman died in the possession of all his faculties; his brain was found after death to contain numerous white softenings due to arterio-sclerosis. Again, Ewald operated upon a dog, removing one labyrinth, with recovery; then the other labyrinth was removed with recovery; then one one motor cortex for fore and hind limbs was removed with recovery. Finally the motor cortex of the opposite side was removed, and this operation was followed by death. This experiment proved that the sensorio-motor cortex could take up the function of the labyrinths in addition to its own; and when both motor cortices were removed, not only were their normal functions lost to the animal, but also those functions they had taken up after destruction of the labyrinths. Lucian's experiments showed the same substitution of function. Among human beings the educated deaf, dumb and blind, such as the Misses Keller and Bridgman, are examples *a propos*. Anton finds that the part taking up the lost function never performs it quite so efficiently as did the original part; and it becomes so much more easily tired.

Rickets as a Disease of the Race—D. von Hansemrnn (Berlin Klin, Woch.) mentions the social aspect of rachitis, inasmuch as it cripples its victims and unfits them for the business of life. He says that this disease should be classed as an affection of the metabolism of the body, rather than, as is generally done, as a disease of the bones. There is present a disposition to lung troubles as well as intestinal catarrhs, a mild form of internal hydrocephalus, which causes spasms of the glottis and convulsions, and an external hydrocephalus which produces increased intra-cranial pressure on the medulla oblongata.

The number of rachiitc children who live to grow up is much lessened by the predisposition to infectious diseases of childhood which exists, and the liability to die from these affections. Tuberculosis of the glands as well as of the lungs kills many more such children. The results of the disease in later life vary much. In some cases the changes in the epiphyses cause the stature to be small. In others the opposite condition results, and giants are produced. Kyphoscoliosis is frequent and often results in death at about middle life, due to lack of aeration of the lungs from narrowed thorax. The rachitic pelvis in women is well known. Deformities of the legs are of two kinds, bowing out of the legs and knock-knee. The latter results in rachitic flat-food, which reacts on the knock.knee and makes it worse. This difficulty prevents many men from entering military service.

As to the etiology of rachitis there have been several theories. Against the infectious disease theory is the fact that never occurs except in infancy, while all other infections occur in adults as well. Rachitis occurs in animals as well as in man, a fact which is of great importance in suggesting its etiology. Experiments have shown that it does not depend on an absence of lime salts in the food. Ape fed with plenty of lime salts still have rickets. Observations by those who have charge of zoological gardens go to show that animals in captivity have rickets, while those in freedom do not. The uncivilized races do not show any evidences of it. The Japanese who live in houses that have plenty of air, and dress loosely, do not suffer from it. It seems to exist in connection with conditions in which races are shut up in houses, wear constricting clothes, and do not exercise out of doors enough. This is, according to the author, the true etiology of the disease. In civilization the rachitic child grows up and propagates its kind, and its offspring have an increased tendency of rickets, so that we are continually increasing the liability of the race so the disease. We must fight against the disease by increasing the out-door life and exercise of the baby, at the same time nourishing it as well as possible, and we shall have to wait years before we can see the results of the treatment on the race.

Appendicitis of Children.—Broca (British Journal of Children's Diseases) mentions the fact that appendicitis is almost never seen in new-born babies, the youngest on whom he operated having been one year and eight months old. Even this is most exceptional, partly perhaps because of difficulty in diagnosis. It is to be observed that post-mortems in children under two years of age very rarely describe peritonitis as due to appendicitis. Broca believes that appendicitis in children is predisposed to by mucomembranous enterocolitis. When appendicitis develops as a complication of this condition it comes in a chronic and insidious form. The chronic forms of appendicitis in children are characterized by gastro-intestinal atony and dyspepsia. There are attacks of gastralgia, and usually a vague discomfor tin the right iliac fossa, where on

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examination will be found slight distension, a thickened, non-flexible cecum, and at times a small tumor which is either an enlarged appendix or the associated swollen lymphatic glands. Also there is pain on pressure over McBurney's point.

Broca calls attention to vomiting, especially in the morning, as a sign of chronic appendicitis in children. Attacks of acute indigestion are common; there is vomiting, fever, and the tongue becomes coated. At the same time there is abdominal pain, which is localized either around the navel or in the right iliac fossa, and on palpation there is localized tenderness about McBurney's point. The attacks are often relieved by a dose of oil. They last only one or two days; exceptionally they become so recurrent and violent as to suggest periodic acetonemic vomiting in children.

Broca formulates his practice as follows: The operation should be done immediately if the surgeon sees the case in the first 24 hours following the outbreak of the attack. If called afterward he must proceed in accordance with the indications, but with the idea of calming as much as possible the attack before operating. He notes the difficulty in making the diagnosis as against tubercular, gonococcic, and pneumococcic peritonitis. He also calls attention to the fact that worms may sometimes produce symptoms identical with those of beginning appendicitis. He notes that the abdominal stitch of pneumonia may lead to error, especially when this condition is central. The onset of typhoid fever, characterized as it often is by enlargement of the cecum and its lymphatic glands, must be considered. In the presence of a general acute peritonitis Broca advises operation. Encysted peritoneal forms of suppuration, with persistent fever and the presence of demonstrable swelling in the iliac fossa or rectum, call for incision after the third or fourth day. The medical treatment of the acute attack lies in complete deprivation of food, large bags of ice to the abdomen, and the administration of opium only when it is specially required by severe pain not explained by an increase in the iliac swelling. Purgatives are dangerous.

There is a form of gangrenous appendicitis in which Broca admits that the symptoms may be most misleading until the final toxemia, which comes rapidly. There is often little swelling, no pain; there may be absence of rigidity. Broca thinks that in the absence of an absolute and conclusive diagnosis the results of waiting until the patient has either perished or has recovered from his acute attack are better than those incident to the performance of an immediate operation.

Broca removes the appendix about a month after the first attack, and believes that the first attack is sufficient indication for operation. In the case of localized abscesses he removes the appendix only when this can be done readily. His incision is that advocated by McBurney.

The Prevention of Difficult Labor.—Herman (British Medical Journal) says that 4.1 per cent. mortality from puerperal sepsis is not justifiable, and that improvement in this respect is not as rapid as it should be. The first cause of fatality is laid to the door of ill-trained medical men and ignorant midwives. Then comes the case due to disproportion of the size of the child and that of the pelvis. This disproportion may cause death by mechanical difficulty in labor or by favoring hemorrhage; in either case death is avoidable. Eclampsia as a cause of death seems to be beyond reach, since it can neither be predicted nor prevented; nor is absence of albumin from the urine a guarantee against this complication.

Rupture of the uterus in easy labor is another cause of death which can neither be predicted nor prevented. The same may be said of acute yellow atrophy of the liver. The deaths due to the mechanical disproportion can be prevented by examination during pregnancy not later than the seventh month. The disproportion can then be detected and safe means taken to prevent its having any ill effect upon the mother.

He says that mechanical difficulty in labor implies that the person has been advised by incompetent persons, since if she comes at the seventh month the causes of difficulty can be observed and can usually be remedied. If she does not come this means that she has been badly advised by some one. If by examining the patient at the seventh month the child is found to have reached the full average size, the proper course is to prevent a difficult labor by inducing premature labor. Not only is it quite as able to take care of itself as an average child, but its premature birth is better for it, because it would probably be injured by the difficult labor of term if this were allowed to take place. If this induced labor is conducted with precautions to secure cleanliness, it is held to be no more difficult than labor at full term. Moreover, the date can be arranged, which is a convenience both for the doctor and the patient, and an effective set-off to the slightly longer labor. The method devised is the introduction of a bougie between the membranes and the uterine wall, thereafter leaving the case as much as possible to nature. This bougie does not require to be tied in, but pushed up as far as it will go. Pains us-

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ually begin within twelve to twenty-four hours. If this fails the cervix is dilated with Hegar's dilators until a Ribes bag can be introduced. When the patient is becoming exhausted by obstructed labor the treatment advised is craniotomy rather than Cæsarian section.

The treatment suggested for accidental hemorrhage is Cæsarian section, though not unless the hemorrhage be so serious as to gravely threaten life. In hemorrhage due to placenta previa the Ribes bag is advised.

Postpartum hemorrhage is avoided by not exerting traction if the uterus is not acting and by the careful emptying of the uterus.

Primary Infection of the Salivary Glands in the Old.—Etienne (British Medical Journal) mentions the various means which prevent infection of the salivary glands and ducts occurring in a state of health; these are the sweeping away by mastication, deglutition, and the taking of liquids, especially when acidulated or alcoholic, of the numerous microbes occurring in the buccal cavity, and particularly the antiseptic properties which normal saliva possesses. If the acts of mastication and deglutition be diminished or suppressed, such as may occur after gastrostomy or gastroenterostomy, the secretion of saliva is rendered sluggish, stagnation occurs in Steno's duct, and invasion of the orifice of the duct and the infection of the salivary gland by microbes are liable to occur. In acute diseases, such as pneumonia or typhoid, a similar state of things is liable to be present. In old age these modifications of the buccal functions are most marked and readily explain the not uncommon occurrence of inflammation of the salivary glands found in these patients. The involvement of the salivary glands occurs by a spreading up of infection from the orifice of the excretory duct, and is assisted by a previous affection of the gland parenchyma, such as may occur in acute infectious diseases. In old people the salivary glands are found to have undergone certain degenerative changes which render them very liable to infection, spreading from the buccal cavity; in some the gland is found to be invaded by adipose tissue, which cuts up the lobules and surrounds the cul-de-sac, so that the secretory canals appear reduced in size. This invasion of fat begins at the periphery of the lobules, and little by little reduces the whole gland so that it resembles a tree with branches, but deprived of leaves; the excretory canals are much more atrophied than the secretory. In more advanced cases one finds the canals dilated, the cells lining them deeply colored and presenting scarcely any longitudinal striation; they are small, cubical, crowded together, and with elongated nuclei. The glandular culs-de-sac are very small, and at certain places the canals are dilated to form ampullæ, with very modified cells, possessing no trace of secreting function; around the canals the connective tissue is abundant.

He says that acute salivary gland infection is common amongst old people (16 out of 45 cases were in the aged), and in such is much more frequently a primary manifestation than when occurring in younger people. The special frequency with which the parotid salivary gland is affected, the author thinks, is due to the exposed state of Steno's duct, to the parotid secretion being largely dependent upon reflex stimulation from the buccal cavity, and to the fact that the function of this gland is more affected by any interference with mastication and deglutition than is that of the other salivary glands. The sublingual gland is comparatively rarely involved by infection, probably owing to the movements of the tongue in speaking, etc., preventing any stagnation of secretion in its duct.

The Treatment of Curved Tibia in Infants and Young Children.—Gangee (Birmingham Medical Review) says that cases of rachitic curvature of the tibia may be divided into several classes. It usually appears in the form of an outward bend, with the point of greatest curvature just below the center of the bone. The sharp area of curvature may be near the joint or near the ankle. When rickets is still in the active stage, if the bone remains bendable, the wearing of an apparatus is serviceable. The child should be kept altogether off its legs. A padded splint is applied on the inner side of the leg, reaching from the inner tuberosity of the tibia to a point three inches below the sole of the foot. To this splint the leg is firmly bandaged. For an hour night and morning the leg is manipulated. Or a pad of wool may be placed between the knees, and another between the malleoli, and the legs bound together. There is, however, the danger of knock-knee. If there is no sign of "give," osteotomy or osteoclasis is indicated. Breaking of the bone is accomplished against the rounded edge of a board by sudden violent pressure. He says that the subsequent use of a leg iron is not needful. There is always possible danger of a fracture not uniting, and there is a belief to the effect that when this complication occurs in a rickety child no operative treatment will secure union, and amputation will be needful. In the class of cases characterized by sharp bowing just above the

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ankle, treatment by any kind of apparatus is most unsatisfactory. Osteotomy and splints are both used, however, for the purpose of securing some betterment.

The same gloomy prognosis can also be held out in regard to anteroposterior curvatures. As a rule these should be let alone.

Miscellaneous.

Official Organs and the Monopoly of Scientific Articles.

Medicine for July, 1906, contains an editorial article on the ownership of papers read before scientific societies. It points out that a few years ago there were no medical journals owned by medical societies and that the papers read before the American Medical Association were published in a volume of Transactions, while no objection was made to their previous publication in the independent medical journals. At the present time, while the Journal of the American Medical Association insists that no paper can be published in the Journal that has appeared previously elsewhere, it does not appear to make a direct claim to the sole right to publication. With the advent of the State journals, however, we find the inception of a more rigid law; for many of the State associations insist that all papers read before them shall become the exclusive property of the association, to be published solely in its official organ. The same claim is made by the British Medical Journal for all papers to be read at the Toronto meeting of the British Medical Association, that they may not be published elsewhere than in the British Medical Journal without special permission. The Montreal Medical Journal enters a protest against this, asserting that the prestige of the British Medical Journal is sufficient to allow it to afford to the reader the choice of publishing his paper through whatever medium he desires. And this principle, says Medicine, might well be adopted by the State society organs. Medicine concludes "if the other rule is adopted and strictly adherred to that all papers read before medical societies must appear solely in the official organs it will do much to eliminate independent medical journalism." Why, certainly. Is not that the very point aimed at? But we do not think that the independent medical journals, at any rate those that are conducted on dignified and high class lines, need be very much cast down. There are as good fish in the sea as ever came out of it and until the vast majority of the medical profession are members of State and national associations and are therefore enabled to find all the "reading matter" they desire in their official organs there will be readers outside of the association sufficient to tempt competent writers to write for independent medical journals. And moreover, when that aimed at consummation shall have arrived whereby the medical profession and the American Medical Association shall have become synonymous and conterminous one of two things must happen—either the official and State organs will become so bulky as to be unreadable, or there will inevitably be weeding out of excellent matter to make way for that which is better; not to mention the fact of the weeding out that will take place because the subject matter of a paper is not in favor with those in power; so that independent medical journals would be started afresh to accommodate that overflow even if all existing ones had been overwhelmed.—St. Louis Medical Review.

The Treatment of Gough In Advanced Cases of Pulmonary Tuberculosis.

In early, and even in many advanced cases of pulmonary tuberculosis, cough in the early morning is salutary, and requires no treatment whatever. The accumulation of secretion during the night requires to be removed, and this is accomplished by the act of coughing. In some advanced cases this cough may become excessive and morbid, and may bring about a condition of extreme exhaustion. Some of the worst of these cases occur in the sanatorium, where judicious treatment has produced very comforting and beneficial results. These cases are frequently accompanied or followed by vomiting of mucus or bile. Undoubtedly the best thing to do is to make the patient sip a tumberful of hot milk, to which has been added 15 to 30 grains of sodium chloride, on waking in the early morning. This simple remedy the author considers infinitely superior to any other. This not only eases but cuts short the cough. If the patient drinks the milk rapidly instead of sipping it, the cough is usually aggravated. If this has failed, he has sometimes succeeded by gargling the throat with a tumblerful of cold water, to which has been added one drachm of soda bicarbonate.

Excessive cough during the night-time usually wakes the patient up just after he gets off to sleep, and may continue more or less throughout the night, disturbing his rest and exhausting his strength. In its more troublesome form it is met with in the "chronic bronchitic and emphysematous types." The author has tried many remedies here—*i.e.*, morphine, apomorphine, codeine, apocodeine, heroin, atropine, and terpene hydrate, alone and in various combinations. He thought terpene hydrate would suit this class of cases, but unfortunately it was not successful. He found that by far the best remedy was a pill of ipecac and squill. He usually started by giving one pill at bedtime, and if not sufficient, which was often the case, gave two pills. In his hands no remedy has given more gratifying results than this one.

Excessive cough on getting into bed is usually stated to be due to the patient coming into contact with the cold bed-clothes, etc., but this is not the only cause. The bed may be thoroughly warmed and yet this harassing cough continue. In such cases it is thought to be usually due to the irritation of the secretion on the bronchial tubes, owing to the patient's sudden change of posture. The best thing to do in such a condition is to make the patient half recline in bed before lying flat down. This the author has found to succeed admirably in some cases. If this fails, sipping a glass of hot milk may be tried, which soon promotes expectoration, and after some coughing the patient gets relief. Care must be taken that the milk is not too hot, otherwise a restless night will ensue.

Cases which demand special attention are those of the "chronic bronchitis and emphysematous types," in which the cough is very irritable and accompanied by an excessive watery and frothy secretion. It is usually found in men of powerful build with fairly extensive disease. King was led to try nearly everything in his endeavors to alleviate these most distressing cases, with but poor results. He had hoped that atropine would have been of much service here, but it failed. At first under its administration the cough was somewhat easier and the secretion was much lessened—in most cases to one-half or more—but after a time the cough got gradually worse, owing no doubt to the irritation set up by the dryness of the pharynx. The various inhalations—*i.e.*, turpentine, creosote, eucalyptus, etc.,—all failed in these cases. The best remedy was undoubtedly the mistura ipecac

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Liq. ammon. acet., ʒ ij;
Tinct. scillæ, m. xij;
Vin. ipecac., m. x;
Aq. anisi, ad ʒ i.

But even this did not give very satisfactory results.

Here a note of warning is added about the inhalation of the vapor of creosote. In the treatment of "pure bronchiectasis," the inhalation of creosote vapor in most cases, curiously enough, stimulated the appetite, but the author noted that in cases of "tubercular bronchiectasis" the very opposite occurred, namely, that the appetite was seriously impaired in many cases, with disastrous results.

The same statement is made with regard to cases of "pulmonary tuberculosis," and the author asserts that he should be driven very hard indeed for a remedy in these cases until he would sanction the use of creosote inhalations, which seem to be coming into vogue at present, and strongly warns physicians against their use.—Scotch Medical and Surgical Journal.

Safe Hypodermic Anesthesia for Major Surgical Work is now an Accomplished Fact.

From all sides come reports attesting the remarkable efficacy of the new method of securing surgical anesthesia with "Hyoscine, Morphine and Cactin Compound, Abbott." The surgeons are taking it up with something akin to enthusiasm. The writer had recently the opportunity of witnessing three serious operations performed under this anesthesia. One was an appendicitis. This patient had two injections of one tablet each, two hours apart. After the last one the attendant came to report nervously that the respiration had fallen to six per minute! The surgeon got up leisurely and remarked that the patient was about ready for the operation, and without concern proceeded with the work. No nausea, no assistant to see to the anesthetic, no unrest, bronchitis or nephritis, but perfect anesthesia for hours, allowing plenty of time for careful work, with hours of quiet sleep thereafter. Surely this is pretty close to the ideal.

Several physicians have reported similar ideal results from this combination in obstetric cases. Smaller doses, however, are used (half size) and care should be taken not to begin too early. This combination is also the best we possess for false pains and pending miscarriage, especially from excess of foetal activity.

Other reports coming in indicate that the profession is applying this anesthetic combination in a wide range of other pointed cases. Several have testified to its superior efficacy in relieving the atrocious pangs of hepatic and renal colic, where it leaves the old morphine-atropine combination hopelessly in the rear. A few doses may also well be used to produce sleep in morphine cases, while the regular dope is being gradually reduced. This will probably prove efficient and safer than hyoscine alone. It is now an established fact that hyoscine, when chemically pure, is not therapeutically identical with scopolamine as some claim. Results unqualifiedly disprove their assertion. The triumph of this anesthetic "Hyoscine, Morphine and Cactin Compound, "Abbott" is again a triumph for chemical purity and definiteness of drug application.—Clinical Medicine.

Between Danger and Safety.

During the past two years, the medical and pharmaceutical press of the country and a legion of representative writers of both professions have conclusively demonstrated the fact that various extracts on the market, intended for internal as well as external use, have been largely and poisonously adulterated by Methyl Alcohol or Formaldehyde, or both. Among extracts of the class indicated, none have been more generally and perilously sophisticated by the toxic adulterants specified than common, commercial and unidentified "witch-hazels," investigation by national analytical authorities of hundreds of samples bought at wholesale and retail from Portland, Me., to Portland, Ore., having shown that the large majority contained wood alcohol (poison) or formaldehyde (poison), or both.

That the Pure Food and Drug Law of June 30, 1906, which goes into effect January 1, 1907, will lessen these perilous conditions to a *limited* extent in so far as concerns *interstate* commerce is probably true. But in so far as concerns the common, commercial and unidentified "witch-hazels" of the market in the States in which they are to be sold, either at wholesale to the retail trade, or at retail to consumers, the Pure Food and Drug Law will not avail locally to control their purity, or to provide against local perpetuation of the adulteration hitherto generally prevalent.

It behooves members of the profession, therefore, still to be on their guard against the poison perils of Methyl Alcohol and Formaldehyde by eschewing common, commercial and unidentified "witch-hazels" having no tangible guarantee of purity, quality and strength *when dispensed* and, as an effective provision against the dangerous possibilities indicated, to prescribe only a thoroughly proven article. The latter is to be found, for instance, in

Pond's Extract of Hamamelis Virginica. For over half a century this sterling product has been the standard of purity, quality and strength for *Aqua Hamamelidis* (now official in the United States Pharmacopœia), and complies with all the requirements of the Food and Drugs Act of June 30, 1906, in the smallest as well as in the largest of the original packages in which it is exclusively offered.

Dr. John V. Shoemaker, of Philadelphia, in his Treatise on Materia Medica and Therapeutics, second edition, volume 2, page 934, says:

"After operation on the pelvic organs sulphur is the best laxative to administer . . . . and if it is continued for some time we obtain valuable systemic effects."

"In digestive difficulties, due to disordered action of the liver, which ultimately leads to Lithaemia and Structure Lesions, the habits of life must first be corrected, and the hepatic torpor will then be overcome by small doses of sulphur."

Sulpho-Lythin is an acceptable and effective means of administering sulphur since its decomposition in the stomach, by the gastric juice, results in the liberation of sulphur in readily soluble form and it exerts no disturbing influence upon the stomach or digestion.

Carbenzol Soap, which is proving so popular with the medical profession, is particularly applicable to the requirements of the Surgical, Gynecological and Obstetrical nurse. It is a perfect cleansing agent as well as a germicide, deodorant and antiseptic. As a "shampoo" it cannot be surpassed.

Dandruff, falling hair and other evidences of scalp disease call for the use of Carbenzol Soap.

Carbenzol Soap differs from the majority of medicinal soaps in that it is pleasant to use, forming a rich, creamy lather, and leaving the skin soft, smooth and thoroughly clean. The pores being opened by its use, subsequent medication proves more efficacious. Regular price of Carbenzol Soap is 25 cents per cake at all druggists. Every one who reads this journal may have a full size cake by sending ten cents in stamps to The Abbott Alkaloidal Company, Chicago, Ill.

The disclosures in the recent past of the fact that many preparations contain opiates or other habit-forming or depressant drugs has no doubt cast suspicion more or less upon all preparations, whether deservedly or not, especially upon those intended for nervous conditions. Neurilla has always been and is now free from "dope" of any kind, and the National Pure Food and Drugs Act should have the effect of reassuring any physician of doubtful mind regarding Neurilla, as we would scarcely guarantee such a statement in the face of the law.

DAD CHEMICAL COMPANY.

Our readers will note from the new Antikamnia advertisement, which appears in this issue, that The Antikamnia Chemical Co. was prompt to file its Guaranty under the New Pure Food and Drugs Act, their Guaranty number being 10; which means that of all the Food and Drug Manufacturers in the United States, only nine filed their Guaranty in Washington before that of The Antikamnia Chemical Company.

This shows the usual Antikamnia disposition to protect the dealer and prescriber of Antikamnia under the law and gives assurance of the absolute reliability of the Antikamnia preparations.

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1. In any case of the general paralysis which has passed through all the stages of the disease, some abnormality is to be found at one time or another in the pupil accommodation reflex.

2. In the great majority of cases accommodation in both eyes is simultaneously and similarly affected, the alteration generally being in the direction of enfeeblement or abolition.

3. In the first two stages of the disease the tendency is to enfeeblement rather than to abolition; in the third stage abolition is the more frequent.

4. In the same patient it is most common to find abolition following enfeeblement. In rarer cases, when no change occurs in the abnormality, enfeeblement is twice as common as abolition. In exceptional cases, exaggeration, enfeeblement, and abolition may occur in the same patient.

5. In the first stage accommodation is abnormal in 50 per cent. of cases; in the second stage in 66 per cent. It is exceptional to find it normal in the third stage, but it may be so.

6. Exaggeration is met with only in the first stage. Different conditions in each eye occur only in the first and second stage. In the last stage only enfeeblement and abolition are found, and the changes are identical in both eyes.

7. Abolition of accommodation, in all probability, is never produced as a primary condition, but is preceded by enfeeblement.

8. The two changes of enfeeblement and abolition are in direct ratio to the progress of the disease, but enfeeblement is more common in the initial stages and abolition in the terminal.

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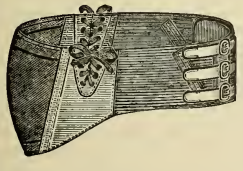

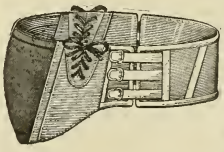

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Marmorek's Tuberculosis Serum.—Roever (British Medical Journal) records his experience of Marmorek's antituberculous serum, which extends over twenty-five clinical cases. After briefly reviewing the method of preparation, the dosage, and methods of application, he states that the cases were all subjected to a thorough and excellent open-air, dietetic treatment, but with the exception of morphine and the acetate of ammonium no other medicament was given. The writer treated sixteen cases of pulmonary tuberculosis—eleven by subcutaneous injection and five with rectal injection. Of the former four, and of the latter one, did well, while three cases in each class were unaffected, and four cases in the subcutaneous injection class and one in the rectal class did badly. The histories of these cases are given in some detail, and a particular point is made of the immediate effect of the injections; four cases of glandular tuberculosis, one of cutaneous, two of bone tuberculosis, and one each of tuberculosis of the bladder and of the bladder and kidney were also treated. Temperature curves and weight curves are further appended. In general the injections were well tolerated, and the local reaction varied considerably in the different cases. 452 injections were given in all, and he did not experience a single abscess. The author prefers the subcutaneous method, but it has been proposed to apply the serum by the bowel every day, so that a larger quantity of the material may be introduced, it being found that rectal injections do not cause a general reaction.

He says that from the clinical histories it is by no means clear whether the serum is responsible for the improvements, but he is inclined to regard the improvement in cases of surgical tuberculosis as being produced by the serum. However, from the clinical side alone he would have been guarded in expressing an opinion were it not for a control which he carried out on the condition of the blood of each patient. He points out that Arneth has demonstrated that if one stains the neutrophile leucocytes, and notes the number of cells with one, two, three, four, and more nuclei, one can form a valuable opinion as to the condition of the patient. One should count 100 such cells, and tabulate them according to the number of nuclei. Damaging processes always first attack the cells with four or five nuclei, and only later are those with three nuclei attacked, so that in the much-damaged blood of a severely infected patient one will find a high percentage of cells with one and two nuclei, while in the healthy condition the first class is represented by 5 per cent. and the second class by 35 per cent. The cases were subjected to such a blood control, and he finds that the results tally with the clinical course. Next he considers how the blood cells were directly affected by the individual injections. The impressions which he received were in favor of the serum having assisted in the improvement and cure, especially in the cases of surgical tuberculosis, but he thinks it necessary to reserve a final opinion until a large series of cases has been subjected to a minute blood-count. The writer says that it will be necessary to give the serum in larger quantities, and to continue it for a longer time, if one is to obtain the maximum effect.

Degeneration of the Myocardium in Hot Climates.—Brown in the British Medical Journal calls attention to the degeneration of the myocardium in hot climates, and considers the condition as of great importance, for while the prognosis is, in case of prompt recognition and treatment, by no means bad, evidences of myocardial change are apt to be misinterpreted, and death not infrequently occurs after an apparently trivial illness. The disorder has no racial preference. Over-indulgence in hard exercise is clearly causative. The middle-aged man who removes to the tropics and keeps up the athletic activities of his earlier years furnishes an especially fit subject. The patient has an indefinite malaise, but there is no faintness, dyspnœa, cough, or precardial oppression. Cardiac rhythm is unimpaired, though the action is indicative of a flabby organ. Death may come in an anginoid seizure. It frequently occurs at night and after the administration of a hypnotic. Autopsy shows the heart somewhat enlarged, lax, and flaccid. Epicardial fat is markedly deficient. There is no endocarditis and no dilatation. Coronary arteries are dilated and soft. The myocardium is pale, soft, and friable. The intermuscular connective tissue is swollen and apparently increased in quantity, but round-celled infiltration and vascular congestion are absent. The tissue appears waterlogged, and in general it may be said that the condition is only a prominent feature of a general dyscrasia which affects all the tissues to a greater or less degree. The main principles of treatment are embraced in rest in bed, limited diet, general massage, avoidance of tobacco, and restriction of alcohol. Opium is the most valuable drug. Strychnine, digitalis, etc., are to be avoided.

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Quinine.

By H. C. Buck, M. D., Friars Point, Mississippi.

If one who studies the physiological effects of the many drugs used in treating diseases as laid down by authorities on therapeutics and compare their teaching with actual bedside experience he will often find quite a difference. The first authentic report we have of the use of cinchona in the treatment of intermittent fever was by the Spanish in 1630, they having learned of its use from the Indians in Peru, who had probably been using it for a great many years previous to the date mentioned. Later, in 1638, the Countess Chinchon was cured of intermittent fever by using the bark, and the name cinchona was given it in honor of the Countess, although through an oversight the name is spelled a little different.

Quinine was discovered in 1820 by Pelletin and Caventon. Since its discovery the use of the bark in treating diseases has gradually been abandoned, although some old authorities recommended what they termed a "bark jacket" in treating chronic malarial diseases. I have seen good results from having a patient wear, next the skin, a heavy woollen shirt that had been boiled in a strong infusion of cinchona bark. I believe all late authorities claim that quinine is a specific for malarial poison. While I believe this to be true to a very great extent there are exceptions to *all* rules. I have frequently seen cases of intermittent fever where I was not able to get any beneficial effects from its use. In the treatment of malarial haematuria (a disease very prevalent in this part of Mississippi) all authorities, that I have read, recommend quinine as *the* remedy.

In Fosters Practical Therapeutics in speaking of this disease, he says: "For its relief large doses of quinine are required, a circumstance which is in one way irregular, for quinine seems competent itself to cause haematuria at times." Hare in his late work on practice says, "The statement that quinine is capable of producing malarial haematuria is endorsed by so many practitioners of experience that it can not be ignored, but we cannot help feeling that coincidence has been a large factor in the development of this view." During the past summer I had a patient who had been having chills every day for ten or twelve days when he came to me for treatment. I gave him 12 grains of calomel and ½ grain of podophylin divided in three doses to be taken two hours apart, also some No. 1 capsules filled with quinine, directing him that when he began to sweat to begin with capsules and take one every two hours until four were taken. After taking the third capsule haematuria developed and he sent for another physician, claiming that my quinine caused the haematuria. This may have been a coincidence, but there were no indications of haematuria up to the time he began taking the quinine, the experience of a large number of physicians in the Delta portion of Mississippi is that this remedy is not only *not* beneficial, but is decidedly injurious, as for myself I never use it in these cases until the secretions and excretions are thoroughly aroused, and even then in very rare cases.

The consensus of opinion among authorities seems to be that quinine has no effect upon the Gravid uterus and can be given to pregnant women with impunity. My observation and experience is to the contrary, for I feel sure I have seen cases of abortion where the premature labor was caused by the administration of large doses of quinine. So strong is my belief in its effects on the Gravid uterus that I nearly always give one or two large doses of this remedy at the outset of labor. Some one advanced the opinion that where quinine did effect the Gravid uterus that the effect was due to the presence of the plasmodium in the blood of the patient. This may account for its effects in my cases, as I have always lived in an intensely malarial section, where there are very few, if any, men or women that are not pretty well "loaded" with the plasmodium.

There is at present quite a diversity of opinion among medical men as to the beneficial effects of quinine in pneumonia. In the J. A. M. A. of July 14th is an article in which the writer claims to successfully treat nearly every case of this disease with quinine and Tinct. Chlor. Im. While I have never tried this treatment my experience has been that quinine is highly beneficial in this disease, and I use it freely in nearly every case, especially in the first stages of the disease. Foster says "Quinine in malarial poisoning quickly reduces the high temperature and is therefore antipyretic." My own experieuce has been that if the remedy be given on a falling temperature it materially assists in its reduction, but if it is given when the temperature is rising it aggravates the condition by increasing the temperature as well as by aggravating nervous symptoms. I am of the opinion that

quinine has very many therapeutic properties that are as yet not understood, and that it could be frequently used with benefit in cases where it is now condemned, or at least not used.

Some Facts Concerning Pyorrhea-Alveolaris or Riggs' Disease, so-called, that will be well for Physicians and Dentists to consider carefully and keep in mind.

By B. F. Arrington, M.D., D. D. S.,Goldsboro, N. C.

In the first place the statement is made, and without fear of successful contradiction, that the disease in question, call it what we may, is more generally prevalent than any disease known to man. That no country as a whole, or section of it, is exempt.

The disease has come down to us from the earliest date recorded of the human family, and will possibly continue through all time, for there is no such thing as prevention of the disease in the mouths of some people, the neglectful and indifferent.

It is no new type of disease that has come to us in recent years. It is simply nothing more nor less than what has long been known and called *scurvy* by the masses, and by physicians and dentists until a few decades past. It is not of more frequent occurrence now in proportion to population, nor more hurtful in effect, than in former years. The same cause that produces it at present will doubtless continue to produce it, unabated with some people, as in the far distant past, "like causes producing like effects" through all ages, and there will be no check or abatement of the disease with that class of persons who indulge the mastication of food, and slight with indifference proper sanitary care of the mouth. The disease prevails with some persons until it becomes sort of second nature and no thought is given to it, tooth after tooth loosens and drops out, and year after year for years a pus laden mouth is tolerated and no complaint is made, or special effort for relief.

The much extravagant and sensational talk and writing about the disease, inappropriate names applied, the mystery thrown around it, the extreme theories pertaining to cause, and the more extreme, impractical and unreasonable features recommended and indulged in treatment, such as excessive water drinking, several quarts daily, devitalizing and removing nerves from roots of teeth, cutting off crowns of teeth at gum margin, recrowning and the like, curreting, decalcifying cementum, the use of dental scalers, chiseling and scraping away the cementum and alveolar process, cataphoresis, compressed air, and numerous other advised impractical local and internal remedies, quite as unreasonable and off of line of sound reasoning and good judgment, and never requisite for success in treatment of the disease.

Just so long as such theory and practice is indulged and heralded through dentale journals as orthordox and must be accepted without questioning, the profession will in confusion go blundering along and fail of success and best results in treatment, and the disease will continue to prevail unabated as a loathsome pest as at present and during centuries past. To accept cause as it plainly presents upon careful investigation, and treat conservatively and simply, on practical common-sense lines, is the sum total of requisites for relief and cure. This is a fact sustained by evidences experienced in daily practice, results that are convincing, which is ordinarily our best guide and teacher.

This disease must not be confounded or mixed up in any way with syphilitic trouble, tuberculosis, gum-waste or hypertrophy of gum tissue. It has no part in either, nor has it upon investigation, a close resemblance to either. In syphilitic trouble the teeth will loosen as in this disease, but there is no deposit on cementum, the gum festoons but slightly, the discharge of pus is less copious and never streaked or mixed with blood, and the odor emanating is far more offensive and at times almost unbearable.

In tuberculosis there is sometimes a free discharge of pus around the teeth, especially the molars, and more frequently the lower than the upper, there is but little if any odor, and never a trace of blood, the teeth hold firm in sockets, and the gum tissue retains almost a normal appearance.

Gum waste, if such a term is admissible, unlike Pyorrhea-Alveolaris, syphilitic or tuberculous trouble, makes no deposit on cementum, there is no visible evidence of inflammation or formation of pus, or unpleasant odor, nor do the teeth loosen and drop out. The gum tissue wastes away slowly, also the alveolus, the gum all the while retaining a healthy appearance, with freedom from acute sensitiveness, or pus pockets around the teeth, and tooth-brush can be freely used without discomfort or causing gums to bleed. The cause of this state of mouth trouble I do not pretend to know, and if there are means by which its progress can be checked I am not informed, and cannot venture a definite suggestion on the subject. It is an open field for experimental investigation that may ultimately bring concealed mystery to light.

Hypertrophy of gum tissue unlike the disease in question, though resembling in it some features, never produces deposit. The gum tissue elongates more extravagantly,

points of festoons, sometimes extending to the cutting edge of teeth, are more engorged, and more universally sensitive to touch. The same remedies, exclusive of scalers, used in treatment of Pyorrhea-Alveolaris will produce satisfactory results if used in treatment of hypertrophy of gum.

The disease in question is no respector of persons, nationality, race, color or age, and rarely ever presents until after a period ranging from three to four years after the eruption of permanent incisors and six-year molars.

All persons excepting the *immune* permitting like causes to prevail are subject to the disease. With some persons progress of the disease to loss of teeth is more rapid than with others, as with some there is never an expression of acute discomfort from commencement of the disease to loss of teeth, while others complain all the while. Cause not yet revealed. The disease is rarely ever seen in its earliest stage of incipiency before the age of nine or ten, and never after the age of forty. In its incipiency it is always first seen at gum margin, and from first perception increases in development without abatement, until the pericemental membrane becomes involved, then the disease is easily diagnosed, there is formation of deposits, pus accumulation and loss of membrane and alveolus, and loss of teeth the result. The disease is recognized as a destructive disease that will run its course to the loss of all the teeth if not successfully dealt with. It commences during youth period more frequently than otherwise, and continues, if let alone, to develop with destructive and unwholesome features, often repulsive and sickening through life, or until loss of teeth, which terminates the disease. It is a disease of the pericemental membrane, and when the membrane is obliterated the disease cannot prevail. This is a fact long established, and there can be no questioning on the subject.

The disease is well defined, and is easily diagnosed; it is separate and distinct from all other diseases, and has no connection or affiliation whatever with any, nor is it the product of uric acid, or any other acid of the human make-up, nor does it first commence at the apex of roots of teeth as some contend, but always at gum margin, there and nowhere else. It cannot be produced by the application of any known remedy to gum tissue, nor by local injury inflicted, as wedging teeth apart, bad fitting plates, defectively adjusted crowns, overlapping fillings under gum margin, nor by any other means save the one natural cause that has ever prevailed, not many causes, local and constitutional, as advocated by many dentists, and has been freely heralded through dental journals, which has caused much confusion, misjudgment and mistreatment of the disease.

The cause of the disease is very common, and upon investigation and test, easy of perception, and is not enveloped in mystery perplexingly confusing as many contend, as is evidenced by the frequency of the disease and the ease with which it can be successfully treated. It is simply the sequence of neglect and indifference pertaining to care of the mouth.

Neglected impactions of food substance with natural secretions of the mouth permitted to accumulate and remain in an undisturbed state between and around the neck of teeth until putrefaction is the result, is doubtless the cause of the commencement of the trouble. This is questioned by some, but time will sustain it as truth, and the disease years hence will not seem so much a mystery and a stumbling block with the profession as at present. As stated, the effect of the cause is first perceptible at the gingival margin, and the advance of the disease is as above stated. The gum tissue takes on inflammation as a consequence of the putrified state of the impacted substance, in a 98 degree temperature all the while, and becomes detached from necks of teeth to the extent that the pericemental membrane becomes exposed and subject to the same deleterious effect of the cause of gum disturbance above stated, and just here the serious feature of the trouble begins. Inflammation of membrane is established, deposits formed, suppuration produced, the alveolus wastes away a-pace with loss of membrane as a result of the hurtful effect of cause.

In no other way than secondary is the alveolus involved in the disease (though sometimes called *alveolar pyorrhea*) As proof of this remove successfully the deposits, and there is no further waste of process, and it soon assumes a normal state.

To prevent the disease, is to keep a cleanly mouth from early childhood period to the age of forty, and a good practice it would be for decency and the betterment of general health, if continued through life. Such practice would never bring hurtful results, but universally healthful, with promise of increased longevity.

To indulge such practice easily and without fret and contention with children, all that is requisite is to commence with children at an early period, before the eruption of the first permanent teeth the free use of tooth-brush and water after meals, and to keep up the practice through youth period, and it should be encouraged as a life practice. Such practice would not only preclude the possibility of trouble from this, the most

frequent and loathsome mouth disease, but as a safeguard to a considerable extent against much of tooth decay, and if judiciously applied to top of tongue twice daily, from foul breath, which with some people is sometimes a most repulsive and serious affliction.

To do to the extent of ability to prevent disease, and preserve a normal state of mouth if possible, is first duty of physicians and dentists, and treatment for patch-up and repair should be second consideration. Mothers and others in charge of and having the care of children, must be so instructed and educated pertaining to care of children's mouths, the importance of use of tooth-brush, right sort of brush, how and when to use it. This, humanity demands as a professional service and christian duty, and to be rendered whenever necessary. Some dentists think otherwise, or so express themselves. Let us reflect for a moment and query on the subject. Suppose a practicing physician in a community where typhoid fever prevails, possesses knowledge of means of prevention of the dread disease, and should selfishly refuse, or from a feeling of indifference to the interest and well being of the community omit or decline to divulge the secret of prevention, in what light would he be regarded? Public sentiment doubtless would be against him, and justly so, and by many he would be held in derision and scorn.

As with the physician, his indifference to duty and his fate, so with the dentist under like circumstances.

More of equity, and more of the principle of the Golden Rule worked into professional life would be better for the public and ennobling for the professions.

Many persons, including physicians and dentists, some of them having long experience in practice, ask the question, "is Pyorrhea-alveolaris or Riggs' disease amenable to treatment, and can it be cured." There can be but one reasonable answer, and that in the affirmative. The disease is amenable to treatment, simple treatment, but effective, and it succumbs most readily and beautifully, and there is no hitch or hindrance to cure if the chief feature in treatment, removal of deposits, is thorough, and patients will observe instructions given. In a majority of cases one treatment at one sitting is all that is requisite for cure. Taking cases as they present, a cure can be produced in from two to four weeks time, according to the extent of the trouble, and the age and physical condition of patient. It is important before commencing treatment to make a careful diagnosis to determine whether there be complications.

Just here it will be well to state that there is no such thing as the existence of the disease in question, if there is pus discharge and no deposits on roots of teeth. The deposit is a never failing feature with the disease after the pericemental membrane has become involved for a reasonable length of time. In the event there is pus discharge and no detectible deposit I will suggest to recommend patient to a physician.

The deposit is always on the cementum, (never found on enamel) and just below the line of attachment of membrane at neck of tooth, and continues progress, cake or granular form, towards apex of roots until teeth loosen and drop out or the disease is checked.

The *thorough removal* of *the deposit* is the important requisite in treatment for cure. Upon this operation, the first step in treatment, hinges success or failure, therefore there must be no slight in the execution of the operation. The operation of removing deposits to be effective and non-hurtful to soft tissues, cementum and alveolus, (very important) must always be performed with smooth-edge scalers shaped suitably for most effective work.

A sharp-edge scaler should never be brought in contact with the cementum alveolus or soft tissues in treatment of the disease. In no other way than from the use of sharp scalers causing evil results, and failure of thoroughness in the removal of deposits, can be accounted so many failures in treatment.

Scalers with sharp edges can be easily converted into smooth edge by stoning off the edges until the instrument under pressure will not scratch or mar a finger-nail, then there will be no risk of hurt or injury, and it will be a guarantee of better results. Every practitioner of dentistry in this or other countries can, in proportion to capacity for success on other lines of professional work, treat this disease, so with physicians adopting same line of treatment.

All should be treating it, for the disease is everywhere prevalent, causing much discomfort and doing much injury, and treatment is greatly needed. The field for work is large for dentists and physicians.

To make treatment a success with the majority, upon lines of plain, practical procedure, I will suggest that before commencing treatment, to discard from mind all prejudice, and preconceived ideas pertaining to cause and treatment of the disease that may have been imbibed through listening to sensational talks, and reading impractical speculative papers on the subject, and to accept the disease as it is, and for what it is, a very common every day disease, one that can be easily treated (most cases) and at moderate cost in general practice.

The whole line of treatment from commencement to finish is simple, plain and conservative, as of necessity must be to insure gratifying results.

I have treated experimentally, quite a number of cases, never using anything but scalers, and the majority of cases thus treated resulted favorably. This is evident proof of the importance of scalers and thoroughness in the use of them as a needed factor in treatment of the disease. The non-use of scalers with physicians is the chief reason why they cannot and do not treat the disease after deposits are formed on cementum as successfuly as dentists. The incipient stage of the disease, before there is formation of deposit, is the period when it should be most carefully looked after, for at that stage it can be easily checked and cured without the aid of scalers. The disease as it presents generally, advanced to second and third stages, cannot be successfully treated without careful, painstaking application of scalers, and this is the wanting link in the chain of treatment that precludes the possibility of success with physicians in treatment of the disease after it has passed the first or incipient stage.

By a large majority of dentists the disease is regarded and treated as stated in correspondence by a prominent member of the profession who, several years ago, in discussion of the disease, said, "Like most general practitioners, I have never made any special effort to stay its ravages, only prescribing temporary relief, then advise extraction." There are many who frankly confess and openly proclaim, "all that I ever attempt to do in treatment of the disease is to take off some tartar and then prescribe a mouth-wash."

With such a state of professional neglect of duty and non-effort of exertion to do to the extent of ability for relief, we can readily see why the disease prevails seemingly unabated, and why those afflicted with it feel so discouraged, and so few seek treatment.

Just so long as there is lack of effort with dentists (physicians likewise) the disease will prevail as at present, and to the discredit of both professions.

Physicians seldom prescribe for or treat the disease, except for temporary relief, especially since dental colleges have been established. Yet it is a disease for consideration and treatment by physicians as well as dentists, and both can treat with equal success if fortified alike with requisite outfit, chiefly smooth-edge scalers.

Physicians treated the disease long years before the name of pyorrhea-alveolaris or Riggs' disease was applied to it, and before dentistry was thought of as a profession in this country.

For successful practice in treatment of the disease, less than half dozen remedies, *including scalers*, will serve the purpose. There is never need for more. Scalers, dilute sul. acid, tooth-brush, pulv. pumice-stone and campho-phenique are chief factors requisite in treatment, and with them rightly applied, all can be accomplished in result that can be desired.

If parties treated will faithfully observe instructions given pertaining to use of tooth-brush with plenty of water in mouth after meals, and will be careful in the selection of brushes, and select the right sort, (always small size with good space between rows, with each tuft of bristles well serrated) such as the J. N. Johnson brush, now so popular as a practical brush, or corresponding patterns, it will be but seldom that a second sitting for treatment will be necessary or called for.

It will be well to state frankly, that in the event that after treatment and cure is effected, there shall be failure to respect and carry out instructions given as to care of mouth, there will in a large per cent. of cases be after trouble, like causes producing like effects, a feature and a law of nature that will ever prevail.

It is with parties treated to do as advised, and keep cleanly, healthy mouths, or otherwise as preferred. Physicians nor dentists must not be held accountable for omission and non-performance of duty of patients, and all persons treated should be so informed when service is rendered, that they may more carefully and wisely consider the subject and derive fullest measure of benefit.

In evidence of the effectiveness of the treatment above outlined, I report below a few of the many cases which have come under my care.

Case No. 1.—Mr. W. B. S—. Suffered with tender gums, loose teeth, and foetid breath for years. As a result of the disease lost four teeth, and all of those remaining were very sore and loose. He received one treatment in October, 1905. The after treatment consisted of the liberal use of water and tooth-brush after each meal, also finger pressure on gums. On April 17, 1906, gums were sound and insensitive to the hardest brushing, breath was no longer offensive and teeth were firmly fixed in their sockets.

Case No. 2.—Mr. T. I. S— Patient received one treatment 17 years ago, teeth are now firm in their sockets and free from decay with the exception of one wisdom tooth; gums are in a perfectly healthy condition. He has had no trouble at all since treatment.

Case No 3.—Mr. W. E. S— Was trou-

bled many years with diseased gums; gums were detached and blood and pus exuded from sockets of teeth which were very much loosened. Received one treatment and since that time the exudation of blood and pus has ceased, the gums are healthy and the teeth are no longer loose. A liberal use of water and the tooth-brush was the only after treatment, (finger pressure on gums was used also).

Case No. 4.—Mr. W. A. F— Seventy-four years old, had suffered with diseased gums and loosened teeth for a number of years. Received one treatment in 1898. On June 11th, 1902, teeth were firm in their sockets and gums perfectly healthy.

The practical, simple and conservative treatment which I have outlined never fails to give beneficial results. Physicians and dentists can avail themselves of it, (no difficult task), and should, for the disease is prevalent everywhere with all classes, and general treatment is greatly needed.

A Word About Diagnosis, with Illustrative Cases, Especially the Report of a Case of Metastatic Abscess from Intestinal Intoxication.*

By Dr. Stephen Harnsberger, Catlett, Virginia.

Diagnosis, Webster tells us, is the determination of a disease by means of distinctive marks or characteristics. The original meaning of the word is to distinguish and to distinguish means to know by visible marks.

To the young graduate, who goes out to his work with the text-book ear-marks of disease fresh in mind, the way to his diagnosis seems plain enough. But is it a commonly occurring fact that "distinctive marks and characteristics" of disease loom up to glare the way to a diagnosis? Let the observation and experience of the care-worn physician answer.

As a matter of convenience, diagnosis may be considered under three heads:

(1) Mediate diagnosis.
(2) Intuitive diagnosis.
(3) Non-diagnosis.

Mediate diagnosis is in harmony with reason. Mediate diagnosis, therefore, by indubitable certainty, does not admit of any reasonable cause of doubting. Intuitive diagnosis is in harmony with instinct. Intuitive diagnosis is knowing by direct cognition, with utility for a result and is, therefore, justified. Non-diagnosis involves a contradiction. It is the result of human weakness and may be ascribed to one of two causes:

(1) Ignorance.
(2) Carelessness.

Ignorance is latent knowledge undeveloped, for what is unknown today may be known tomorrow. Ignorance, therefore, is the undeveloped mine of knowledge. In the absence of this truth there could be no progress—today and tomorrow would remain as yesterday.

Carelessness is unfolded knowledge not comprehended. If comprehended, there could be no non-diagnosis, for knowledge made manifest evolves into diagnosis.

Ignorance is finite and at times excusable.

Carelessness is optional and always unpardonable.

A mediate or intuitive diagnosis is always better for the longevity of the patient, while a mediate or intuitive prognosis unquestionably redounds best to the welfare of the physician. And while this is commonly true in regard to both diagnosis and prognosis in general no one can deny the fact that we, as physicians, should never, not even in the seemingly most trivial case, treat lightly or carelessly the factor of diagnosis. According to Osler, I believe it is, we cannot make more than 40 per cent. of mediate diagnoses; then allowing 10 per cent. of intuitive diagnoses, we readily see what a fearful stretch of darkness we have to grope through in caring for the other half of our cases. The very fact that 50 per cent. of our work is done in blindness, is much more the reason why we should strive assiduously, persistently and intelligently to discern the hidden conditions of the diseased human body—by body I mean the unity of moral, mental, physical, including family history, personal history, habit and the influence of environment.

Not long since I heard a well known local surgeon say that a certain distinguished author and clinician of Philadelphia was the finest diagnostician he had ever known? And what do you think he gave as a reason for the opinion he expressed? This—that he had seen the doctor come to his lecture hall, examine the patient, announce his diagnosis and treatment, and that almost invariably the sequence—a cured patient—proved the correctness of his diagnosis. Now, it seems to me, if this be the criterion of one's success as a diagnostician, that very few of us need worry or grow old over our shortcomings in this one particular at least, for with any of us, in what proportion does the number of our deaths compare with the number of our apparent cures? Is the paucity of our number of deaths to the multiplicity of our number of cures the way to judge as to the character of our diagnostic acumen? And if this is not the way, in what other way can one arrive at a correct

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at White Stone Lithia Springs, S. C.

judgment in the matter? It is not the only way, for post-mortems also reveal the correctness, as well as the faultiness, of our diagnosis. But as corroborative revelations of post-mortems are rare, comparatively speaking, there should be nothing to make us dissatisfied with our diagnosis based on the preponderating proportion of our cures —unless it be that inner consciousness of the truth that even in the majority of our cases, we are just a bit doubtful in our own minds of the correctness of both our diagnosis and prognosis—believing as every experienced and honest physician does, that perhaps nine cases in ten would get well without our professional direction and guidance and perhaps also that some others now dead might be living.

We hear a great deal and we read a great deal about the importance of a correct diagnosis, and we see the publishers' announcements of volume after volume on the subject of diagnosis, and yet if we come down to every day facts and exclude the many cases that would have gotten well without our intervention, we see that the actual number of cases requiring diagnostic acumen is very few. Hence, it has occurred to me that the very fact of the happy ending of this great preponderance of less important cases tends to and does render us careless and inattentive, so that when we are brought to face a really puzzling case our diagnostic acumen is not found well edged, and for want of this constant training we can't see as far into the mill-stone as we should do. This, it seems to me, is one reason, at least, why the few succeed and the many fail as diagnosticians. The many by inattention to the little cases fail to grasp the conditions presented by the fewer unusual cases. A hit and miss method of diagnosis does not educate the physician and it is often-times disastrous to the patient. The experience resulting from close observation of every case will, on many an occasion, lead to a correct diagnosis, even without the confirmatory evidence of plain objective symptoms and physical signs. The judgment trained by close observation and long experience learns to correctly interpret the collective clinical findings, and a correct diagnosis is often made in advance of the condition itself. How and wherefore the diagnosis is made, is not always explicable even by the one who makes it. It is simply this, that the mental affinities of the diagnostician are satisfied and all else is shoved aside as of no present import. It is true that we may study each case and we may be deceived, but in the deception there is this consolation—it has made us more intelligent and so put us more nearly in harmony with reason.

The basis of success in diagnosis is found in instinct and experience, with a thorough understanding of the theoretical ground work as a necessary concomitant condition.

Carelessness in clinical observation lessens experience, which in turn tends to inhibit the faculty of diagnosis, and naturally the value of diagnosis decreases as carelessness in clinical observation increases. Therefore, gentlemen, and especially the younger men in the profession, do not scan over any case if you would know the hidden case, for you will find later on in your professional career that the hidden case is, as a rule, only a bigger evolution of the slight, and, as you thought, innocent little case.

The stitch in time saves nine in medicine as well as in stockings, but you cannot know where and when and how to put that stitch unless you first recognize the rent that needs it.

Imbued with the importance of the first slight deviation from the normal and its cause, you can the more readily trace the next step in the beginning degeneration and so on to its ultimate pathological effect, so that when you meet with the unusual case you are in the best possible position for retrospective reasoning, and from the tangible facts thus elicited you have at least a reasonably tenable basis for a rational diagnosis.

No man, however intelligent, can skillfully and properly repair a complicated machine unless he knows every piece and part of its structure; the place of each piece and its bearing upon every other part of the machine; and not then can he right what is wrong until he recognizes what is wrong. Nor can we physicians intelligently and skillfully right the physical or mental wrongs of our patients until we first recognize the physiologic error or pathologic condition present.

"The sun's rays fall on each separate fruit, which it paints and ripens as though that were its sole business."

Give intense interest to each separate case. It helps to meet the emergency—to save life, and after all to save life is greater than being great.

Mediate Diagnosis.—My case records were destroyed by fire about four years ago, hence I cannot give the full history of this case.

Lt. Commander M., U. S. N., aged about forty-five was discharged from hospital in or near Boston and ordered to report in Washington. Came to see his wife who boarded near here. This was in November, 1898. I found him with slight fever, pulse 100, respiration 22; rales general—asthmetic breathing with cough. Some muscular soreness. Urine albuminous. Tendency

to constipation. Treatment mostly eliminative. He did well. I reported his condition as very favorable. In fact, my report was so markedly contrary to the "records" in Washington, that on December 24, 1898, Dr. John H. Clark, Medical Director of the Navy, came up to see about him. This was the third time, in as many years, so I understood, that he had been discharged from hospitals to report in Washington and each time he had gone to bed again with the same general symptoms, especially the symptoms of serious kidney disease. The Medical Department of the Navy had fully determined to retire him. The records since he entered the Navy were such as to single him out as a proper subject for Bright's disease.

During our long talk over the case, Dr. Clark repeatedly said, "I wish I could see the case as you do for Mr. M's sake, but the records are against him—he'll never be fit for duty." I argued otherwise and held out that he would ultimately be well. Finally Dr. Clark asked me, "How long do you want to cure him?" I answered, "If it was any other patient I would say two weeks, but with his history, give me one month." When Dr. Clark went back to Washington he asked for three month's leave for our patient—he got thirty days. The thirty days expired about the 25th of January following. I had Mr. M. report for duty, I think, on January 20th, or four days before the expiration of his "leave," in order to have him escape the inevitable medical survey. I did this because albumen, etc., still showed in his urine, and I fully realized that this knowledge would then and forever end his connection with the Navy. He reported as stated above, and was assigned to a boat at Key West a few days later.

From copy of urinalysis made November, 10, 1898, by Medical Director in charge of U. S. Naval Museum of Hygiene at Washington, I find "albumen—trace." It was soon after this examination that he came under my care.

I sent all the specimens of urine to Dr. Monte Griffith, Washington, D. C., who handed them over to the late Dr. Wm. Fisher (George Washington University Hospital) for examination.

One of Dr. Fisher's reports, which gave albumen and casts, was dated January 9th, 1899.

Dr. Griffith in sending this report to me says:

"You will see from analysis that your patient has kidney lesion. * * * * * The granular hyaline casts are unmistakably from the tubules of the kidneys. The mucous most probably from the bladder. I infer your patient's kidneys and bladder are both affected. You, of course, will know. Hope your treatment may benefit him."

About January 19th I had another urinalysis. Concerning the report is the following letter from me to the Lt. Commander M., dated January 24, 1899: "Found your note on my return home. Received Dr. Griffith's letter at Charlotte, but it is now mislaid. However, it says in plain language that you are better. Now, I am still of the opinion that I can, with your best determination to get well, direct you pretty steadily on the road to health. Keep all the records for me—urine analyses, etc."

Another examination was made by Dr. Fisher on January 23rd. Dr. Griffith in sending this report to Mr. M. says: "The enclosed report of analysis made this day shows a most decided improvement in your condition under the treatment of your physician and I sincerely hope you will do nothing to give yourself a 'step-back'."

I argued that the "weak kidneys" were only relatively weak—not hopelessly diseased, and based my belief on the following reasons:

(1) The general appearance of the patient, in my judgment, did not indicate chronic nephritis.

(2) Because my treatment, almost purely eliminative, gave such encouraging results in so short a time.

(3) The lack of a persistent amount of albumen continuously eliminated.

(4) The absence of cardio-vascular changes. If the renal lesion was chronic and of adequate gravity to cause his retirement from sea-faring work, in the nature of the case, there should have been cardio-vascular changes of sufficient positiveness as to have appreciably raised the general blood pressure. The significance of hypertension as a precedent or consequent condition of both cardiac and renal perversion should not be overlooked. So far as I could ascertain, there had been no knowledge of high blood pressure up to the time the patient came under my observation—there was none during that time.

I looked upon the condition as possibly pre-nephritic but certainly not nephritic.

That was in 1898. Mr. M. has been promoted twice since then, is now Captain, in good health, and in active service. The test of time bears me out.

Intuitive Diagnosis.—A. W. T., male, aged three months. Breast-fed. Always healthy. Family history good. Patient began to cry at 11 a. m., February 19, 1905. His mother could not quiet him, so sent for me. I got there about 5 o'clock. Found child still crying. Examined mouth for

pins and then his clothing. Discovered none. Removed clothing and looked for evidence of trauma, with negative result. Heart and lungs normal. Temperature normal. On account of crying it was almost impossible to examine his abdomen, but I imagined I could detect a little fullness. Right foot seemed to be a little larger than the left, but gave no pain on moving or handling it. There was absolutely no known symptom or physical sign to guide in the diagnosis. What was the matter, and what was I to do? I anticipated an inflammatory focus from intestinal toxaemia and so informed the child's parents. I ordered antiseptic applications to the foot and abdomen, and calomel and intestinal antiseptics internally. White of egg diet. I left with instructions to call me early if patient was no better, or worse. Messenger had me up at 5 a. m., February 20. Found temperature 106 degrees F. and facial, as well as general, appearance indicative of intense toxaemia and impending death. Abdomen enlarged. I lost no time in emptying and washing out the colon. The result confirmed my diagnosis that far—temperature ran down two degrees. Otherwise could see no change. Continued application to the foot.

The parents of the child were new-comers —had only been here about twelve months. This was their only boy and a gap of eleven years since birth of youngest girl. I knew what it meant if he should die; so advised a consultation.

Dr. R. E. Wine, of Brentsville, Va., was called. He, too, recognized the gravity of the case and the unusual lack of symptoms. He advised continuation of treatment. Saw patient next morning and evening. Condition about the same. Used colon tube and kept up treatment. At 2:30 a. m., February 22, was called again. Abscess had formed on inner aspect of right foot and including ankle joint. Made free opening, irrigated and dressed wound. Temperature lowered to 100½ degrees and the child looked better. February 23, temperature 99 degrees; February 24, temperature 98½ degrees. Improvement continuous and rapid.

The assumption that the abscess in this case was caused by intestinal intoxication is certainly not unreasonable. Had I made an examination of the pus from the abscess the findings may have shown a connection between the impaired intestinal function and the simultaneously occurring abscess. I regret very much that I did not do this.

I recall the report (Krokiewitz, etc., Amer. Med. Aug. 20-04) of a croupous pneumonia in which, during the first few days, there developed a swelling of the left shoulder joint, resulting finally in the formation of an abscess. An examination of the pus revealed pure cultures of the Frankel-Weichselbaum diplopneumococcus. Very few similar cases have been described in literature.

Non-Diagnosis.—Was called to see a school girl aged twelve. Very slender and pale. Father an alcoholic and inclined to rheumatism. One brother had been treated for nephrolithiasis. One sister for necrosed tibia.

Two days before I saw her, on her return from school, she complained of feeling weak and nervous. Could not sleep on account of an undefinable uneasy feeling or distress; rather inclined to tears. No appetite, tongue coated, bowels sluggish, kidneys moderately active, temperature normal, respiration 20, pulse 120 and irregular. Precordial uneasiness—cardiac beats visible to the eye.

My first thought was that she had been running or romping too strenuously, but she denied both. Then it occurred to me that she might be entering upon the changes incident to puberty. The anxious and uneasy feeling kept up for three days. The second time I saw her, I questioned her again about running and romping, then she told me that she and two other girls were "jumping up and down" on a board over a rather deep ditch, when the board broke and precipitated them suddenly to the bottom. As she was so very frail, I made the diagnosis—traumatic shock to the nervous system and heart. Three days later (seventh day of sickness) I found an ankle joint somewhat swollen and tender, with ½ degree of temperature. This joint was better at my next visit, but a knee joint was tender and swollen—temperature still up. I then inquired more closely into her previous history and found that she had quite a severe attack of rheumatism when three years of age. Now, had I done this at my first visit, as I should have done, I would no doubt have suspected latent rheumatism, and at once put her on appropriate treatment. As it was, seven days time and opportunity had been lost. The cardiac condition grew steadily worse—I lost my patient.

The Early Diagnosis and Treatment of Phthisis Pulmonalis.

By L. Sexton, M. D., New Orleans, La.

In view of the climatic and other successful treatments of early phthisis pulmonalis, it becomes necessary to make a diagnosis of the disease just as early as possible in order to do the greatest good to the largest number of subjects.

With this in view, we will consider some

of the first symptoms and conditions which should cause us to recommend the early removal and treatment of tuberculosis, as it is generally conceded that any treatment, whether climatic or otherwise, must begin in the incipiency of the disease if any permanent good is to be accomplished.

The beginning period of tuberculosis is often over-looked. The symptoms of incipient tuberculosis vary much, but the first noticed are languor, slight loss of flesh, pallor, weakness on exertion, probably dyspnoea, chilly sensations and digestive disturbances. If the temperature is taken it will be found a little above normal in the afternoon. There may, or may not, be slight cough, hemoptysis, and pleuritic pain. Night sweats usually occur after the disease is well established in the patient.

Temperature is a very important factor in the determination of tuberculosis, especially in a malarial district, and it is not uncommon to see a patient running a low form of fever, progressive emaciation, failing energy, with night sweats. The temperature of tuberculosis is usually intermittent, though obstinate. It increases with the slightest exertion, associated with a pulse of unusual rapidity and irregularity. This will often be seen in the ordinary malarial fevers of long standing, and to further complicate diagnosis these tuberculous fevers yield readily to quinine, only to rebound soon after the agent is removed. A blood examination may decide the diagnosis if positive, but is not conclusive if negative. If the above condition exists, the patient should be subjected to a rigid and searching physical examination.

A fever in tuberculosis, produced by exercise or exertion is not immediate after the exercise but follows in six to eight hours, the same as it would from a tuberculin reaction, and it may be of decided diagnostic value to inquire into the history in these low typed fevers as to previous exercise.

In many cases the disease begins with an attack of pleurisy, simple bronchitis, or la-grippe. We should be especially suspicious of cases of pleurisy and bronchitis following whooping cough, measles, typhoid fever and influenza.

The subject at this time may not be appreciably ill, he may deny the existence of any cough, except when first arising in the morning, still if you will weigh him you will find he is continuously losing flesh. Following this, a low intermittent grade of fever, occasional pains in the chest, with slight indigestion and general languid feeling. Up to this time, we may have no physical signs of the disease except at the apex of the lung where dullness on percussion, with harsh breath sounds may be discovered upon close examination.

In physical examinations, every variance from normal should be regarded as suspicious, and the patient should be kept under observation till the diagnosis is cleared up. The signs most frequently met in incipient lesions are dullness and diminished respiratory murmur. The normal ratio of inspiratory and expiratory murmurs are destroyed both in intensity and duration, the expiratory takes on a harsh and bronchial quality, and is lengthened. These signs at the apices indicate an apical catarrh, usually of tubercular significance.

Rales in any location, especially if continuous, are the most important and positive sign that we have, even in small quantities. These may appear before any respiratory changes takes place, and great care should be taken to elicit them, as they may only be heard at the end of inspiration.

Of the physical signs, careful examination will bring out slight dullness, and moist crackling rales over the affected area at the end of inspiration. The percussion must be very light. There may be decreased expansion over the affected side or area. Breath sounds a little harsh. Increased voice sounds especially the whispered voice: Expiration is generally high pitched and prolonged.

If you will, with a tape measure, make a careful examination between inspiration and expiration you will find that it is usually less than three inches. Stripping the patient to the bare skin you will note the chest is either flat, shallow, or long and narrow. The ribs are plainly seen; the neck, in thin persons, is long and usually bent forward. In other instances, the patient will say he is easy to catch cold, and that each succeeding cold is more persistent than the former one. Daily evening fever, emaciation, and in blond subjects the burning cheeks, soon to be followed by night sweats as the disease progresses.

Pleurisy is one of the most common onsets of tuberculosis. Out of 90 cases of chronic pleurisy one-third terminate in tuberculosis, the attack beginning either with effusion, or the dry variety of pleurisy.

Strange as it may seem, pleurisy is much more often a fore-runner of tuberculosis than are laryngeal symptoms.

Onset with Dyspepsia.—Life insurance companies usually reject all under weight subjects who suffer from chronic indigestion. There is such a close affinity between gastro-intestinal troubles and pulmonary tuberculosis that this rule has become operative.

Chronic sore throat, more or less loss of voice, muco-purulent expectorations are the fore-runners of tubercular laryngitis. Some of this sputum may contain bacilli before

the lungs are even infected. After expectoration is noticed, and particularly in the pharygeo-laryngeal tube, the tubercle bacilli may be found previous to any involvement of the lung whatsoever, but failing to find the tubercle bacilli upon one or many examinations does not prove the case to be negative.

Very often hemoptysis is the first symptom calling attention to a tuberculous lung. It may appear as streaks of blood in the sputum, often and repeated, slight hemorrhage; or come in considerable (rarely) quantities. At the first onset physical signs may be entirely absent. In fact, Neimeyer claimed that tuberculosis followed instead of preceded these hemorrhagic attacks. Hemorrhagic sputum is the exception in early tuberculosis, it may be muco-purulent slightly tinged with blood, later of a greyish yellow or a boiled rice appearance.

A heart beat constantly above 90 with occasional attacks of dyspnoea and palpitation are exceedingly suspicious systems of tuberculosis.

The family history should be investigated carefully not only as to lung tuberculosis in the immediate family, but also in uncles, aunts and grandparents. Such other tuberculous diseases must be inquired about as "white swelling," spinal or other bone disease that may be due to tubercle bacilli. It must be remembered that patients do not inherit tuberculosis, but simply a decreased resistance to it.

Again, while we do not consider that we inherit the tuberculosis, we certainly inherit the soil in which it rapidly develops, so the early symptoms of tuberculosis would count for much more provided the mother or father had suffered from tuberculous disease.

Given: A man who has inherited this lessened resistance would never develop the disease until exposed to infection by the specific organism. We think we are thus exposed in our cities and hospitals almost daily, but, of course, not so in the country. If such a patient should live in a house where there lived, or had lived, a case of inherited tuberculosis, coughing and spitting millions of bacilli daily, he might inhale the dust, ladened with bacilli, or eat the food that had been infected by house flies that had walked over infected sputum or feces.

Cases presenting any of the above symptoms would be considered more suspicious if they had been living in premises occupied by tuberculous subjects, or had been nursing or attending patients suffering from this disorder.

When a history of consumption is obtained in a family, it should always be ascertained if the patient ever lived in the house occupied by the relative. Also if he has lived in a house infected by any tuberculous patient. Remember, he gets the tendency from his relatives but may get infected from any tuberculous patient.

The increased susceptibility to tuberculosis is not merely inherited from our ancestors, who were tuberculous, but any malady that might have lessened the resistance of the mother during gestation, and lactation, thus producing a lessened amount of nutrition to the mother and likewise to the developing fetus, which lesseus its vitality and resisting powers materially. The condition can be acquired by sedentary and unhygienic living at home, in the office and through dissipation.

We like to think that no amount of infection will cause the disease unless there is previously lessened resistance, but as a matter of fact this is not the case. Given sufficient exposure to the bacilli almost any person will fall a victim.

The microscope is here a very valuable diagnostic agent when positive, but not to be relied upon for a negative opinion.

Just as the most reliable diagnosis of malaria is made with the microscope, though in rare instances, cases die of malaria before the parasites can be found in the blood, so the tubercle bacilli may not be found in the sputum until the case is well advanced.

We should lay stress on two special points here. One is the importance of a very thorough search for the bacilli by one who will take the time to look over several slides; and the other is, that if the sputum is kept in a warm, even temperature, or, better in an incubator for a day or two the bacilli multiply and may be found with ease in a specimen which was previously negative.

Pain —The pain incident to early tubercular deposit depends largely upon the extent to which the pleura is involved, as this is its source of origin in the great majority of cases. In fact, pain is not at all a constant symptom, and will not do to rely upon, as perhaps three-fourths of the tubercular conditions begin by hemorrhage, fevers, slight cough, which is not usually attended with any pain, or if pain is present, it is as likely as not to be of rheumatic or neuralgic origin. But, if after deep breathing following an ordinary case of pleurisy, either with effusion or dry, we may have pleurodynia, which is one of the early symptoms of the trouble.

ough.—There is cough in the early morning, after which there is scarcely any more trouble from the cough during the day, unless the tuberculosis be complicated with intercurrent bronchitis. Cough is usually dry and hacking in the beginning,

with hoarse voice when the larynx is involved.

Hoarseness may be produced by pressure of the infiltrated bronchial glands upon the recurrent laryngeal nerve and produce an early and very obstinate symptom.

In some cases the cough symptom is more prominent when first retiring, owing to the chill of the cold sheets, and occasionally after meals, particularly if the digestion is bad, the cough is often attended with vomiting and loss of food.

As said before in the above conditions with less than 2½ inches of expansion, slight dullness on percussion, increased vocal fremitus, pleuritic friction sounds, vesicular breathing increased, normal ratio of inspiration and expiration changed; the injection of Koch's tuberculin in a case presenting the above symptoms is more than likely to bring about a positive reaction in fever which would settle the diagnosis.

In healed and incapsulated lesions, and in those cases with far advanced processes, you will fail to get a tuberculin reaction.

Tuberculin should never be given to patients with fever, nor to those where a previously active process has recently become latent.

Prophylaxis.—There is no disease in which prophylaxis may accomplish such brilliant results as in phthisis pulmonalis.

Given: A child who inherits the tendency or soil to tuberculosis, then add to this lessened resistance an atmosphere and premises in which millions of bacilli are being expectorated and dessicated daily, and there is not one chance in a thousand for said child to escape infection.

Take the same infant as soon as born, even of tuberculous parents, and remove it to proper environments and its chance for growing up healthy are increased a hundred fold. This proposition opens up the best opportunity for prophylaxis in thus removing, as nearly as possible, children from tuberculous environments, to relatives who are better situated to care for the rearing of the child, and, where at least, the constantly infected atmosphere is not present.

Isolation should be the rule wherever it is possible to enforce it. It has been a mooted question as to whether tuberculosis could be acquired through the stomach, as by the eating of tuberculous food. Its general entrance into the system is supposed to be through the air passages, particularly through inflamed tonsils or ulcerations in the naso-pharynx. This latter mode of infection being the accepted general method, it behooves the sanitarian to see that all tuberculous sputum is expectorated only in sputum cups, which should be burned or otherwise disposed of daily. It is no hardship to the consumptive to thus protect his own family, and the public from the risk general expectoration results in to the common community.

It is our judgment that cases of phthisis should be reported to the boards of health just the same as any other infectious disease, and that such houses and rooms as have been occupied by tubercular subjects should be subjected to the most rigid sanitary cleaning before the premises are occupied by the next tenant. It is only by compulsary registration of houses and cases, that strangers can protect themselves, by looking up the record when moving into a new community.

Not only school teachers should be examined for tuberculosis, but the pupils as well by the most searching investigation. A positive diagnosis should excuse any such child or teacher from further connection with the school. Popular lectures, sermons and newspaper editorials should bring the public into such intimate knowledge of prevention, that the spread of the great white plague would become much less by popularizing this preventive information.

Non-grafting Government inspectors should make constant examinations of all dairies and slaughter houses, in order that the purest milk and meat should enter into our food products. Tenement houses should not be so crowded and ill-ventilated as to form actual incubators for the tubercle bacilli to which they are often subjected.

Climate —So much has been said about open air climatic treatment of tuberculosis, that it is almost impossible to add anything that has not, perhaps, already been better said. It is a known fact that the tubercle bacilli succumbs very readily to free exposure to sunlight, regardless of the temperature. It is known to thrive best in dark, ill-ventilated rooms where squalor and poverty run riot. The open air treatment was a natural conclusion as the very antithesis of the above mentioned conditions, and it has been so successfully carried out through sanatoriums and tents in various colonies in the United States and Europe, that it is no longer a theory, but a demonstrated fact that a large percentage of incipient cases treated in the sunshine with forced feeding really get rid of the tubercular process, and remain well so long as they conform to the conditions which brought about their cure.

The tubercle and leprosy bacilli are so closely related in morphology, that they are exceedingly hard to distinguish one from the other; recent experiments in treatment in the Louisiana Leprosy Home has proven that sunlight and fresh air is just as efficacious in the latter as in the former disease.

Again, we have the beneficial effects of

light illustrated in the treatment of Lupus Exudens by the X-ray which is decidedly the most successful method of treatment applied to that very loathsome disease.

It is our judgment that the climate which furnishes the largest percentage of sunshine with the least amount of air pollution is the best place for the infected subject to permanently improve. As a matter of course, such climate should be mild in order that the greater part of the nights, as well as the day, can be spent in the open air.

We incline to the belief that some cases, at least, do as well in a humid atmosphere as in the higher, dryer, and dustier places.

To illustrate: At Covington, La., in the pine belt of the Florida Parishes, a health resort to which consumptives have been migrating for past half a century, with, perhaps, as much benefit as to those who have been going to the dryer western and more elevated northern resorts for the treatment of this disorder. To patients with neurasthenic habits and accelerated heart beats, where higher altitudes have increased insomnia and pulse rate, we would most strongly commend the pine belt in southern Mississippi, Georgia, and Louisiana, and have seen results that have been equal to any obtained in other localities.

No one climate or place is suitable for all cases, and to many, that do badly near salt air, and much humidity are very rapidly improved by removing to some higher, dryer altitude as Silver City, Alberqueque, Las Cruces, New Mexico, and El Paso, Texas.

It is said that in some of these places, germ life is so negatived that the carcasses of dead animals actually dry out in the open air without any decomposition whatsoever; in other words, they furnish from 60 to 75 per cent. of sunshine and equitable climate with no very sudden changes, a limited amount of rain falls, and, to many, these conditions have proven the advisability of at least a two years residence in these dry climates. Tent life here is practiced both summer and winter, and as it is the *open air* that is the *great requisite*, the tent life under the proper direction of some medical man is, perhaps, as advantageous as the regular sanatorium's treatment in the Adirondacks and other places. Any one pursuing this open air method of treatment during cold nights, should have stove, woolen underwear, and blankets to protect the surface from chilling, as it does not seem to matter how cold the inspired air is, provided the body temperature is kept up.

In order to carry out the forced feeding, which is one of the methods in the Las Cruces treatment, it becomes necessary to take a moderate amount of exercise, just short of fatigue, in order to spur the appetite to that degree of acuteness that will call for three or four hearty meals daily, provided digestion is normal; in other words, consume food and throw up barriers of phagocytosis faster than the germs of tubercle bacilli can consume the affected lung.

As regards the proper kind of diet, it should be left largely to the patients likes, and his ability to handle a particular kind of food for which he has a preference,

Ordinarily, foods richest in carbohydrates are the best fat producers, when, however, they disagree with the stomach, as is often the case, other suitable foods must be given the preference. The globule of cod-liver oil and sweet cream can hardly be distinguished under the microscope, and yet, to the consumptive's palate what a difference. It has been our rule, that whenever the various emulsions of cod-liver oil and other fats disagreed with our patients to resort at once to a forced feeding with rich milk or cream, with perhaps as beneficial results as were ever obtained from the administration of cod-liver oil.

If lung gymnastics were practiced daily by deep abdominal breathing, with mouth open for a limited space of time, three or four times daily, we would have the same proportionate ratio of development in elasticity of the air cells and lung tissue, that we see in the right arm of the blacksmith, who constantly swings his hammer until his right measures one-third more than the left in diameter.

In persons subject to hemoptysis, this exercise should be commenced very gradually, but to the average compressed, bound down lung it has a most beneficial result in the great majority of cases.

The drug treatment of phthisis pulmonalis is largely a matter of meeting special symptoms as they arise, but as the object of this paper does not embrace the symptoms of advanced phthisis, we shall not dwell upon that phase of the subject, except to say that in incipient phthisis it is our judgment that we have very much more to gain by forced feeding, pulmonary gymnastics and open air sleeping and exercise than we possibly can from the most scientific administration of drugs without these hygienic and other aids. We do not mean to be therapeutic nihilists, for there are many valuable drugs to at least alleviate many of the symptoms of advanced phthisis, but, as said before, the object in this paper is to urge upon practitioners the early diagnosis and prompt removal of incipient tuberculosis to such climatic environments as are best suited to them; their only chance of recovery depends upon the early diagnosis and treatment, for in the third stage it is

too late to expect any remedial agent to be of marked benefit.

In the successful management of tuberculosis, it is absolutely necessary to lay aside the daily vocation, in order that you may have absolute rest of the mind, body and nervous system. This is necessary in order that all energy may be devoted to tissue building, and in combatting the effects of the toxines. It is especially to be desired in those cases who are running a high temperature, and it is necessary to place them at complete or cadaveric rest, with forced feeding. In cases of this type, the carbohydrates must be withheld because they are producers of heat. In the meantime the albuminous foods must be increased and forced to their fullest capacity, with little regard for the temperature. The enforced *rest* and *feeding* must be supplemented by continuously remaining in the open air.

This is absolutely essential to any success, so far as acquiring a clinical cure is concerned. It means a hard fight from the very beginning, and it cannot be entered into with faint-heartedness and be crowned with success. It is a battle worth fighting, and the fight must be made from the very beginning. It must be continuous and reenforced by patience, fortitude and constant watchfulness. Self must be conquered, and reconciled to a long and sacrificing conflict.

To remain in the fresh air must be the constant vigil of him who is determined to get well. And by it we do not mean to sit in the room with a door and window open. It means to be out of doors completely, where there is no obstruction between you and the greatest curative agent that has yet been discovered, and one we have in the greatest abundance, the only expense being that of the effort that it takes to get it. Reading, writing, and all forms of amusement can be done outside as easily as it can be done inside, and the house should be avoided except as a resort of necessity. We should sleep in the open air either on a closed or screened porch; in a tent that is open on the sides, or if either of these conditions are impossible, then every door and window should be opened wide. This is the one great advantage of the western arid climes. Here we have rain seldom, and you can sleep out in the patios and never think of or fear being disturbed by rain or dews. You have a climate that renders it possible to remain out of doors in the open the greatest possible time, and here lies the secret of success of the great number of arrests and clinical cures that we can claim.

The question of exercise is one of great importance, because it comes in for its share in conducting the case to a successful termination. It must be complete as said before, and be disassociated from worries as far as can be. No exercise is to be indulged in where there is any temperature, or any of the vasomotor disturbances produced by toxines. It is never wise to tell a patient to get a horse and rough it on a ranch as so many are instructed to do before they are sent from their homes to the west. It means either death earlier than it would otherwise, or else means their becoming chronic cases, in which a clinical cure is a remote possibility.

The Kidney of Pregnancy.*

By Wm. A. Graham, M. D., Durham, N. C.

This is a condition arising during pregnancy, pathologically showing anemia of the kidney with fatty infiltration of its secreting cells, without acute or chronic inflammation; caused by a diminution of blood-supply due to intraabdominal pressure and by contraction of the arterioles from irritation of effete substances. There is always renal insufficency, often albuminuria and in some cases hyaline or granular casts and there may be all the symptoms of true acute nephritis. The practical guide to the relative sufficiency is found in the amount of albumin.

It is to be distinguished from true nephritis; chronic nephritis may give history before pregnancy, has in some cases albuminuric retinitis, symptoms of kidney insufficiency appear early, casts appear early and are abundant, persists after delivery and pathologically shows inflammatory change. Kidney of pregnancy begins in pregnancy, does not exhibit retinitis, generally appears after six months, has casts only in marked cases, disappears after deliveery and shows no inflammatory changes unless convulsions have occurred.

The grave symptoms of the disease include headache, somnolence, edema, albuminuria and eclampsia, the first four being forerrunners of the eclampsia, which is to us the thing to be avoided or boldly and often heroically treated if we would save our patients. There are many theories as to its etiology' what ever the true one the main fact is a condition of autointoxication from renal insufficiency.

Symptoms of eclampsia are prodromal; consisting of pains in head or epigastrium, muscae volilantes, failure of vision, restlessness or stupor; and the sypotoms of the attack itself a convulsions affecting eyes, head, face and neck and upper; extremities rarely the lower. Consciousness in lost, returns and is lost again, stupor becom-

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ing deeper with each convulsion,

As exemplifying the symptoms, diagnosis course and treatment, I wish to report six cases, occuring within recent months and in contrast to them one case of pregnancy with true nephritis,

Case-1- Married-32-Negative family and personal history except when pregnant. First pregnancy occurred under the late Dr. W. D. Young, resulting in premature labor, still born child, prematurity being due to " Kidney Troubles" Her second pregnancy was diagnosed June 3rd '05, vomiting causing the consultation and the expected date of confinement was Nov. 27th, Next saw her on Oct. 9, 14, and 20th. at end of 7th month. she then had albuminuria in moderate amount, no casts temperture 100 to 101, severe bilious vomiting, scanty bilious urine, Untill 22nd she was treated at home with diagnosis of catarrhal gastritis and duodenitis, this diagnosis being made on the presence of the fever and absence of casts, headache, failing vision, dropsy or convulsion. On the 22nd she was removed to Watts Hospital and for three days her condition remained the same except fever disappeared, During night of 25th her heart failed and reacted to no stimulation, she developed headache, failing vision and slight edema, became stuperous and her delivery was imperative. Permission to induce labor was refused untill after much delayed consultation, and finally the induction was begun at 8 P. M. next evening. It was found that she was already in labor, the cervix was quickly dilated with Barnes Bags, membranes ruptured and she delivered herself of a living premature child which died in a few minutes. The delivery had no effect on her condition, vomiting and stupor continued heart did not react to any stimulation. She died without convulsion about ten hours after delivery.

Case -2- Married 16-Primipara-first seen Dec. 1st 1905, Date of expected confinement Jan. 15th Previous history negative. First albuminuria noted Dec. 26te none being present one week before. She was visiting her parents and was sent home, arriving there 7 P. M. postponing my visit to the next morning. At 2 A. M. found her in labor, sitting up entirely conscious, but with a peculiar fixed stare. Examination showed L. O. A. position with os size of a dollar and immediately after examination she had a severe convulsion which was controlled by chloroform She had a second convulsion while I was preparating for her delivery, chloroform being administered by a member of the family. By this time Dr. Joseph Graham arrived and under chloroform dilating cervix with Barnes Bags rupturing membranes, and applying forceps she was delivered in ten minutes of a normal living child, there being no tears of perineum, slight tear of cervix which was left alone on account of her dangerous condition. Prescribed calomel 10 gr. Mag Sulph ʒi in one hour repeated at 8 A. M. Tinct. Veratrum Viride m 15 hypo repeated once, chloral ʒi per rectum. No action during the day. Pulse remained rapid and of high tension and at 3 P. M, we responded to a hurry call, patient having 13 convulsions before we could reach her. Chloroform her, gave her Ol. Tiglii Gtt. 5, tinct. veratrum viride hypo every 15 minutes for four doses, which brought pulse to 80. Bled her one pint from median basilic vein and put her in a hot-pack for 12 hours. From inefficient nursing croton oil acting freely during the time, in changing packs she became chilled and developed a right sided diaphragmatic pleurisy, followed by effusion. Unfortunately a small abscess formed on left chest from a veratrum injection. Subsquently the pleurisy became purulent, diagnosis was established by aspiration and the empyema was drained under chloroform Jan. 14th. The kidney steadily improved, she had no symptoms of sepsis her convalescence was slow and she was dismissed on March 15th taking Basham's mixture ʒii t. i. d.

Case-3- Married-32- 2nd pregnancy having living child 3 years old. First visit Feb. 18th midnight, on account of severe epigastric pain. This was accompained by marked urticaria, has been present at intervals for a month and she stated that she was seven months pregnant. There was puffiness of lids, swelling of feet, headache and a dropsy of abdominal wall so great that on standing the pendulous portion reached well down on the thighs. Examination of urine, boiled over lamp, showed large per cent. of albumin. Admitted to hospital next morning and after consultation induction of labor was advised and accepted. At midday with light chloroform anaesthesia two shotted bougies were introduced up posterior surface of uterus to its fundus and held in place with gauze packing. Pain began at 7 p. m. and at midnight, twelve hours after introduction of bougies, they were removed under chloroform, cervix dilated with Barnes bags, membranes ruptured, two fingers introduced, version performed and premature child delivered without tear of cervix or perineum. In performing the version, with deep anaesthesia, after greatest dilatation possible it was impossible to get more than two fingers beyond the internal os and in delivering the after coming head the forefinger tore through lower jaw, tongue and throat to the

top of the sternum, finally requiring forceps to deliver it. The patient made a good recovery, dismissed free from albumin Nov. 19th taking Basham's mixture 3ii t. i. d.

Case 4.—Primpara, 33; of a rheumatic family. Acute nephritis from exposure to cold ten years previously. Date of expected confinement March 3rd, 1906. At seven months, just after Christmas, began to show swelling in feet, face and hands, but no albumi ,nuria. Mag. sulph. was given freely with so me improvement. Regular analysis showed albumin present about January 15th after an imprudent meal. Was put to bed on milk diet, with mag. sulph. and Buffalo water freely, with kidney poultices, and there was temporary improvement; followed by increase in swelling and continuance of the albuminuria without casts. Treatment was kept up but case was stubborn, and albumin continued in appreciable amount. There was decided insomnia, some frontal headache, and great deal of backache high up in the loins. About January 23 motion of child became less noticeable. During the following week it was impossible to locate the heart sound. During this week the mother's condition was good, and in hope that the child was still living interference was delayed. On February 1st nature settled the question and a premature hydrocephalic dead child was born after a normal labor. Convalescence was slow and protracted, kidney clearing up very slowly, but finally recovery was complete.

Case 5.—Married, 19; primipara. Previous history negative. Had little or no attention during pregnancy. First acquaintance with patient was a call at 8 p. m., May 18th, 1906, for supposed hemorrhage from the lungs. Found a very frail, girlish patient, supposed to be eight months pregnant. Husband stated she had said she was blind, and jerked all over and blood ran out of her mouth. She was unconscious, could not rouse her, eyes staring, slight edema which had been present under the lids for a fortnight, pulse 80, regular, of a very high tension. Examination of catheterized urine showed albumin. On vaginal examination labor pains were present, os size of a quarter, head presentation. Gave her morph. gr. ½ hypo and removed her to Watts hospital. In half hour after removal her mind had cleared, could count my fingers, complained of nausea, severe epigastric pain and increasing labor pains. Pulse continued regular and of high tension. Under chloroform os was further dilated with Barnes bags, membranes ruptured and forceps applied in a L. O. A. position. Delivery was tedious, cervix was badly torn, perineum intact, premature child living six hours. Repaired cervix, gave her hot pack for two hours, calomel gr. 10, followed in one hour by mag. sulph. 3i repeated in four hours; resulted in bowel movements with relief of headache and diminution in pulse tension. After treatment consisted of mag. sulph. 3ss every morning, hot pack one hour morning and evening, liquid diet, compression of breasts, and she fully recovered.

Case 6.—Married, 28; primipara. History negative, First seen February 18th. Date of expected confinement June 20th. Two days previously had acute indigestion from lobster salad followed by marked edema of lids and feet. Urine showed appreciable albuminuria, no casts, slight headache, restless sleep. Was put to bed for a week on milk diet, mag. sulph. before breakfast, and albuminuria disappeared. After this she used Lithia water continually, mag. sulph. was used as indicated, no meat was allowed, and occasional doses of trional were required. Repeated examination of urine showed low specific gravity, cloudiness, abundant phosphates but no albumin; which condition continued unchanged until her delivery, by forceps, June 22nd, forceps being required from contraction of antero-posterior diameter.

Case 7.—Married; 38, with five living children. This case was first seen with the late Dr. Carr four years ago, and at that time urinalysis showed albuminuria, hyaline, granular and epithelial casts. Seen again in March, 1905, with the expected date of confinement September 10. Urinalysis showed low specific gravity, albuminuria, and hyaline, granular and epithelial casts. Some headache, constipation, slight edema of feet, hands and face, highly nervous, irritable; rapid and violent action of the heart with marked accentuation of second aortic sound, and slight enlargement of left ventricle. Meats were not allowed, mag. sulph. and Lithia water used freely, and her condition remained the same through pregnancy. In the latter months edema and headache increased so much as to make me fear convulsions, but the patient would not submit to rest in bed, further purgation or reduction of her diet. She was very nervous and irritable at the approach of the labor and was finally delivered Sept. 20th after a hard labor, forceps being required on account of imperfect flexion with brow presentation. Her convalescence was slow and all urinalysis up to the present time have showed both albuminuria and casts of different varieties.

The treatment has been sufficiently indicated. It may include anything from a simple regulation of the patient's life to major obstetric procedures in the presence of eclampsia. It should always be carried

out with the idea of avoiding eclampsia; consideration of the life of the mother before that of the child being necessary to success. And it is much better to err on the side of premature induction of labor than to take chances with the life of the mother. Facing eclampsia, chloroform, veratrum, morphine and croton oil are the best drugs and should be supplemented by the quickest and safest method of delivery. While in those cases of convulsions without dilatation, special dilators may be used, in most cases the ordinary uterine dilator followed by hydrostatic dilatation with Barnes bags will be efficient, and has the advantage of cheapness, convenience and safety. Manual dilation has many advantages, but often the physical strength is insufficient to overcome the circular fibers of the cervix. Having gained entrance to the womb, use forceps or version as indicated in the special case, version generally being preferable.

Some Compensations of Physicians other than Money.

By Dr. C. R. Lesnett, Fairlie, Texas.

The law of compensation is universal. It is to be found existing throughout all the realm of nature. The vast physical forces of nature by which the complex machinery of the universe is kept in motion and controlled are governed, indeed, we might say, are made possible by this law. The same law, too, has to do with all human actions, with all our efforts, with all our activities. Every act is rewarded in some manner. Usually the nature of the reward corresponds with that of the act. "As ye sow, so shall ye reap." Sometimes it seems to be different. Sometimes it seems that a good act meets with an evil reward, and sometimes the doing of evil seems to procure a goodly recompense; but these instances of deviation from or perversion of the general law are only seemingly so. It is believed that where a good act is followed by an evil reward, or vice versa, the effect is only for the present and that the ultimate, permanent reward is of the same nature as the deed.

The exhortations, "do good to those who despitefully use you" and "recompense evil with good" are taken to mean that the pursuance of this course will most surely bring about the ultimate, just and rational reward. In this world there are many deeds done that so far as human knowledge and observation extends do not meet with the reward merited. Then, too, there is sometimes quite a difference of opinion as to what is a just reward in certain instances. That which is considered as ample and appropriate payment by one individual may be looked upon by another as entirely inadequate, and too, a reward which may be considered sufficient when meted out to some one else may seem to fall short of what is merited when the case applies to ourselves. In other words the view we take of the matter may be very considerably modified by considerations regarding the ownership of the ox that is gored. When we enter the domain of business we find the rule prevailing that dollars and cents is considered the proper reward for services rendered, and another general rule is that when the stipulated or customary amount of money is paid the debt is, or should be, entirely liquidated.

This way of looking at the matter may be right and proper in a purely business sense. Business, pure and simple, is apt to be sordid at best, it concerns itself with sordid matters, and is seemingly satisfied with a sordid—i.e. money—recompense. But when we come to discuss the practice of medicine we leave the restricted business level and touch upon a higher plane of human endeavor. Now, let us understand right here that it is not meant that there is no business connected with the practice of medicine, that it has no business side to it. It has, and it just as much behooves the physician to look after the business part of his profession as it does to attend to the other matters with which he is charged. What is meant is that in addition to its business aspect the practice of medicine has another very important side to it and that the physician who does his full duty, who makes full use of his opportunities, and who lives up to the ideals of his profession garners many a reward and is recompensed in ways unknown to the strictly business man. The study and practice of medical art and science constitutes what is called one of the learned professions, but it is much more than that. Of course there are ignorant members of the medical profession, just as ignorance may occasionally crop out in all other callings. Now, as the true physician must be more than simply learned it follows that an individual may be versed in medicine as well as the collateral sciences, and also well grounded in all the different branches of knowledge pertaining to a broad and enlightened condition of intellectual and mental activity and yet fall far short of being that true, versatile, broad-gauged, successful physician who meets every requirement of his profession, who fills to its limits the place allotted to him, who grasps and secures the career offered him and thereby gains and harvests the rewards, the recompenses that are of right his. The physician occupies a confidential position in his community held by no other, not

even by the minister of the gospel. He is the custodian of the secrets of his clients. Ah! how many pitiful secrets of poor, weak human nature are entrusted to his keeping. And how often it happens that with the family secrets, is placed with him for solution the problem of averting dishonor, crime and ruin in that family. Many times it is the family physician who prevents or quiets discords which would inevitably lead to the divorce court. Many times it is his wise council that enables some thoughtless, foolish, or mistaken one to avoid errors that would result in future misery and remorse. In one instance he may interpose a warning and in another remove doubts, bringing happiness in both. The opportunities to do this work come to the physician because the people trust him; they trust him with their secret troubles and they have confidence in his wisdom and probity and in his ability to counsel them aright. And because he receives no money in payment for his services in these instances shall we say he is not rewarded? What then of the gratitude of this husband and wife whose happiness he has saved from shipwreck? and of those whose footsteps his counsel has kept from the pathway of dishonor, and of those others whose gray hairs he has saved from undeserved disgrace? Add to the earnest gratitude of the recipients of his services the emotions of the physician's own mind, the justifiable pride in his ability to do this work, gratification in that confidence which prompts the erring, the doubting and the sick to place these opportunities before him and the inward satisfaction arising from the consciousness of duty performed and good done that is not given every one to do.

Let us turn now to what might be called the more legitimate field of the physician's work and briefly notice some of the opportunities and compensations that fall to him there. The clergyman may be called when it is a time of gaity, of laughter and feasting, as a wedding. The lawyer is consulted about the launching of some enterprise or the settlement of some money or property affair, or it may be to engineer a scheme of some kind, perhaps revenge. When the physician is called in it is to a scene of anxiety, fear or terror; a scene of suffering, and it may be impending death. Perhaps a little child, the idol of fond parents and loving brothers and sisters, is stricken in the still watches of the night. Every one is alarmed, everything is confusion. The physician has been sent for; his coming is looked for with impatience, his arrival is noted with satisfaction. His very presence allays apprehension and quiets confusion. How closely those present watch the physician as he coolly and methodically, but none the less promptly, goes to work! Having examined the patient and made a diagnosis, he proceeds to administer the proper remedies. Soon it is evident that the treatment is helping the sufferer; restlessness gives place to quiet, the moans of pain are hushed, the expression of suffering is replaced by one of tranquility, quiet respirations take the place of labored breathing and the patient falls into quiet sleep. What was a scene of confusion, apprehension and terror is transformed by the knowledge and skill of the physician into one of calm hopefulness and tranquil expectancy. What are the feelings of that family toward the physician? Ah! who would not envy that physician his own feelings? And what is his reward? Is it all embraced in the few dollars he is paid for his work? Nay, verily. But again: this time it is the loved mother of a large family of children who are fatherless and almost penniless, who is stricken.

The children consult about sending for the doctor and hesitate, knowing they have no money with which to pay him for coming, but as the mother grows worse there seems to be no alternative, so in fear and trembling they send for the physician. Well he comes; he knows the situation of this family, he knows too, that if the mother is taken away the bread-winner and protector is gone; so he goes to work as promptly, as earnestly and as energetically as he would for one of his most wealthy patrons. After a long siege of close, hard, skillful work success at last crowns his efforts and the mother is restored to her children in her wonted health and strength. The physician gets no dollars for his work here, where then is his reward? What of the bright eyes whose loving and grateful glances linger on the countenance of the respected and trusted one whose skill has given them back the loved parent and natural protector? Add to this the consciousness of duty well done and the satisfaction of restoring this mother to her children, preventing the disastrous results that might have followed her early demise. What physician can not appreciate the feelings of this disciple of the healing art, the justifiable pride in the realization that he possesses the skill and knowledge necessary to accomplish such a work? Again, the physician is called to treat one of earth's great men. Affairs of the greatest moment are in this man's hands, perhaps he alone is capable of averting threatened war or upheaval in some one of the nations of the world; or matters of vital importance connected with some gigantic industrial venture are waiting on him. The eyes of the world are on him, and they are also on his physician; multitudes wait for *his* decision. It may be that his decision may so

influence the price of certain industrial stocks as to affect the fortunes of hundreds or thousands of people, bringing to some financial ruin, perhaps. Well, he conducts this patient back to health and, no doubt, receives a large sum of money as his fee. Is that all of his reward; all of his recompense? Are those dollars all that he gets out of this case? Certainly not. If it was so then indeed would the practice of medicine present no other aspect than that of plain business transactions. But it is not so. The dollars this physician received was the smallest, the most unimportant, the least prized part of his recompense. What of the gratitude, of the words of praise and commendation? What of his own feelings, of the supreme satisfaction in the recognized ability to do great things; the justifiable pride in his profession; in his inherent and trained, unerring judgment? What other field of human endeavor is there—no matter how important—in which success is so meritorious, so satisfying, as that which has for its aim the beating back of the Grim Destroyer, of overcoming the forces of disease, the conquering of pestilence and restoring stricken humanity to health, dispensing the dark clouds of anxiety, fear, horror and suffering; leaving in their place hope, relief, ease, contentment and tranquility? In conclusion it will, perhaps, be conceded as permissible to repeat slightly by directing attention to the physician as custodian of the secrets of poor weak fellow mortals; trusted, because as medical adviser he is known to be a safe depository of family secrets, and a wise, capable and impartial adviser. How many social disasters has he averted! How many family circles trembling on the verge of disruption has he saved from ruin and brought back to a condition of happiness, usefulness and honor! And has he no recompense for this? Can the satisfaction arising from the consciousness of good deeds well done; the gratitude of those whom he has preserved from disgrace and dishonor be measured by dollars and cents? If it were possible, would the true physician barter all this for gold?

Epilepsy: Its Prognosis, Etiology and Treatment.

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Epilepsy is a disease which has been recognized from the earliest times, Hippocrates speaking of it as the 'sacred disease' and giving a prognosis which with all our boasted advance in scientific medicine is the same as that of today. He says "If it attacks little children the greater number die. If youths or young adults, recovery may take place, but there is danger of it becoming habitual and even increasing if not treated by suitable remedies; when it attacks people of advanced years it often proves fatal. When a person has passed the twentieth year of his life the disease is not apt to seize him unless it has become habitual from childhood; when the disease has prevailed for a length of time it is no longer curable." Maisonneuve (1803), Pinel (1818), Esquirol (1838), Valleix (1851), give, if anything, a more gloomy prognosis, while Herpin (1852), Trousseau (1861), and Russell Reynolds (1861) are more optimistic; Tissot (1870) is alone in claiming that he had cured many cases. Bromides were introduced in 1857 comparing the statistics of the pre-bromide with the post-bromide period does not impress us that the bromides have been more curative than the zinc oxide and silver nitrate of then older therapeutists. Russell Reynolds (1861) claimed 10 per cent. of cures, Trousseau (1861) 13 per cent.; Herpin (1852) 50 per cent. Recent statistics are: Nothnagel 4 to 5 per cent.; Laehr 6 per cent.; Akerman 7.6 per cent.; Dana 5 to 10 per cent.; Wildermuth 8.5 per cent. Allowing for errors in diagnosis and also in what constitutes a cure, it seems that the percentage of cures is no greater today than it was fifty years ago.

The etiology of the various cases has much to do with the prognosis. Epileptic convulsions may be the result of a number of conditions and consequently each case has to be studied before a prognosis or line of treatment can be decided upon. Turner gives the following as the percentage of cures in which heredity is considered the primary factor. With hereditary history, arrests 32.0 per cent., improved 31 per cent., continued 36 per cent., out of a total number of 87 cases. Without hereditary history, arrests 33.6 per cent., improved 47.2 per cent., continued 19.2 per cent., out of a total number of 125 cases.

In analyzing these statistics the first point is that 41.4 per cent. of Turners cases had an hereditary taint which, considering the prevalence of the disease, is not large, 1 per 1000 of the population is an epileptic, and every family consists of the parents and three children, then the ancestory of each child will have 18 persons, viz: father and mother each with two brothers or sisters, and four grandparents each with the same, making 18 persons. It follows then as there are 55.5 groups of eighteen children in one thousand that the chances are one in 55.5 that any child has

an epileptic in its ancestory. If an hereditory taint of neurosis, alcoholism, insanity, etc., be added to epilepsy the chances of the child having a tainted ancestory are rendered extremely probable; in fact, there are very few families who have not some neurosis in one or more of their number, and that Dr. Turner should only find 41.4 per cent. with a neurotic family history seems to prove that heredity is of slight importance in the etiology of epilepsy. Another point shown by these statistics is that the percentage of cures is the same in both classes of cases, the only difference being in the percentage of 'improved' cases, in favor of those without hereditary taint. As improvement in epilepsy is a very indefinite term no deductions can be safely made from these figures. Dr. Turner makes a deduction from some cases which he describes that when an epileptic has no hereditary taint the children are usually free from the disease, but if the parent has a family history of epilepsy then the children are affected. This deduction is hardly logical, as if the children of parents without hereditary taint are free why should there be any heredity in the parents from their parents. The more reasonable deduction would be that there are two kinds of epilepsy, one of which can be inherited and another which is not transmissable. It is more probable that epilepsy is a toxic disease, the result of some parasitic infection which may be acquired from the parent.

The age of onset is of interest, 78 per cent. occurring under 20 years of age and 33 per cent. under 10 years of age. The following table shows the cures in relation to the age of onset.

AGE OF ONSET	ARRESTED	IMPROVED	UNIMPROVED	TOTAL CASES
under 10 yrs.	19.8	18.0	62.0	111
11 to 15 "	20.0	35.9	43.8	89
16 to 20 "	34.3	29.6	35.9	64
21 to 25 "	26.6	30.0	43 0	30
26 to 30 "	25.0	25.0	50.0	24
31 to 35 "	11.7	23.5.	64.7	17
36 to 45 "	27.7	38.8	33 3	18
46 to 55 "	18.1	63.6	9.0	11
Over 56 "	50.0	50.0	——	2

The greatest percentage of cures occurs in those cases when the onset has occurred between 11 and 30 years of age. Those cases when onset occurs between 36 and 45 years are probably the result of alcohol or syphilis, and are consequently susceptible to treatment. These tables show 23 per cent. cured in all, 20 per cent. being among those where the onset of the disease occurred before 30 years of age. From the writer's experience this percentage is too low, fully 33 per cent. being arrested under 30 years of age.

The epileptic spasm is the result of some pathologic condition, producing a susceptibility to convulsions by irritation of the nervous system, which irritant acts upon the circulatory system through the vasomotor nerves. The irritation is due to some toxin which causes more or less sudden contraction of the visceral arterial system, thereby causing a hyperaemia of the brain, which is immediately followed by a venous congestion producing anaemia of the brain. There is also a focus of irritation in the brain which can be produced by the hyperaemias which at first occur without a convulsion, producing the irritable focus which makes the convulsion possible. In support of this theory are the following reasons: During an artificial spasm the blood pressure is increased. The nerves of the splanchnic area regulate the blood pressure in the brain. Pressure on the common carotids will sometimes avert a spasm. Amyl nitrite and other vaso dilators will avert a spasm. During an artificial spasm the brain metabolism is increased as measured by the oxygen and carbon dioxide in the blood of the carotid and the torcula herophili. Irritation of the sympathetic system produces contraction of the vessels except in the brain, the vessels of the brain having no vaso constrictor nerves.

There is probably no true active congestion of the brain possible, the cerebral vessels having no vaso motor nerves the cerebral circulation passively follows the changes in the general circulation, the intranciania1 and cerebral pressure varying directly and absolutely with the general venous pressure but only proportionately with the general arterial pressure. It follows, therefore, that a venous congestion may take place which will have great pathologic effects. The history of epileptics shows that as a rule the spasms occur during the night only at the onset of the disease, that is during the recumbent position;the blood pressure taken at the arm by the sphygmometer is about 10 mm Hg lower in the recumbent than in the erect position, partly due to the effect of gravity and partly to the compensatory arrangements in man, emanating from the splanchnic area, necessary for the maintainance of the erect position; in the recumbent position, with the force of gravity eliminated, the brain being at the same level as the heart, when a contraction of the arterial system takes place there is less resistance to the hyperaemia of the brain so that a less forcible contraction will produce as great a hyperaemia as a more forcible one occurring during the erect position. The effect of gravity on the blood pressure has been illustrated by Dr. George Oliver and Leonard Hill, of London, showing that the important duty of compensating for the effect of gravity in man on change of position must be ascribed to the vasomotor and mechanism.

Pressure on the brain has been experimentally examined by Leyden, Pagenstecher, Duret, Bergman, Hill, Naunyn and others; on driving albuminous fluid into the intracranial cavity of a dog at a pressure of 200 mm Hg Heyden produced cries, convulsions, irregular respiration and coma followed by slow, strong heart beats, dilatation of the pupils with nystagmus, followed by acceleration of the heart and cessation of the respiration. Pagenstecher injected wax into the cerebral cavity and found 2.6 to 6.5 per cent. of cranial contents were necessary to produce death, while 0.03 to 0.17 per cent. produced cries and convulsions. Duret found the injection of 5 per cent. wax produced coma; 8 per cent. death. Bergman sums up the results of his own and other experiments as follows: (1) Pain due to tension of dura mater. (2) Stupor, soper, coma. (3) Clonic spasms and sometimes roll and circus movements, but only when a high pressure was suddenly applied. (4) Vomiting, emptying of the bladder and rectum. (5) That the brain does not transmit pressure equally in all directions, which has since been experimentally proven by Leonard Hill. Naunyn injecting saline solutions produced convulsions at a pressure of 80 to 100 mm Hg, the pressure to produce the maximum symptoms was about equal to that of the carotid. From the experiments the deduction can be made that a sudden contraction of the general arterial system producing an increased flow of the blood to the brain increases the intracranial pressure, followed by venous congestion producing arterial anaemia, and that these conditions artificially produced give rise to epileptoid convulsions in animals.

In observing an attack of grand mal there is first a shorter or longer period of aura, in some instances only a few seconds of a dazed condition, or the patient may run or may turn around and around before loosing his equilibrium when he is, as it were, struck down. Gowers claims that the loss of equilibrium is due to involuntary spasm of the muscles, inconsistent with the maintainance of the erect position, it seems more probable that the sudden application of high pressure to the brain causes translocation of the organ en mass, the bulb being thrust against the bone producing bulbar anaemia causing the loss of equilibrium.

The enumerable drugs of the Pharmacopoea are a lasting memorial to our incompetency to scientifically undertake the cure of disease, and has led the materia medica to be called 'the accumulated rubbish of ages'. As epilepsy has been regarded as an incurable disease by the physician, the laity have naturally turned to the non-pualified practitioner, and patent medicines are probably more used by the unfortunate victims than are professional prescriptions.

Of the drugs used in epilepsy with any success the bromides stand first as being the most successful in mitigating the disease; their action on the circulation is given by Butler, they depress the circulation, cause the pulse to become softer and weaker, shortening the systole and increasing the diastole of the heart, the calibre of the vessels is diminished, although the arterial pressure is lowered. During the past year I have had the opportunity of studying a case of epilepsy of the idiopathic type which commenced with attacks of petit mal about puberty, and now at the age of twenty-seven has begun to have occasional attacks of grand mal. From Sept. 28th to Dec. 24th I made daily a complete analysis of his 24 hours urine, and also took his pulse and maximum and mean blood pressure at 11:30 a. m. There is nothing remarkable in the urine, the reduction in the elimination of uric acid observed by Kransky did not occur, the increase of ammonia nitrogen was marked. These examinations were made for ten days, during which no drugs were given, and afterwards he was given 20 grns. of bromide of potash t. i. d. Under the bromides there was a slight increase of nitrogen, but this was probably due to the better appetite and general well being from the absence of the spasms. Calcium and ammonium show an increase which may be attributed to the drug as also the increase of indol, the earthy phosphates were increased at the expense of the alkaline phosphates. Oxalic acid which was very high during the no drug period was reduced to normal, the ethereal sulphates were also reduced.

The pulse and blood pressure show marked changes. During the period without drugs the average pulse rate was 85.8 and the mean blood pressure 117 mm Hg; during the bromide period the pulse fell to 66 and the blood pressure to 96 mm Hg. When the spasms occurred between 2 and 3 p. m. it was observed that the pressure was increased at 11:30 a. m., confirming the observations of Fere and Frank that the blood pressure is increased prior to the spasm. The fall in pulse and blood pressure under the influence of the bromide seemed to keep the spasms in abeyance till a subnormal point was reached when their inhibitory effect was probably lost from want of tonicity of the vessel walls and the weakened power of accommodation of the heart

All drugs which have given results in the treatment of epilepsy are vaso dilators, amyl nitrite, nitroglycerine, sodium nitrite, erythroltetranitrite, hydroxylamin, antipyrin,

ethyl nitrite; useful adjuncts to these vaso dilators and the bromides are adonis vernalis, digitalis, solanum caroliensis, belladonna and suprarenalin. But these drugs do not cure, only decreasing the severity and frequency of the spasms, and to effect a cure the removal of the source of the toxin is necessary. Alkalies in large doses, with bismuth and salol with enough sach lactis to keep the bowels regular, is a great help and under prolonged treatment reserving the bromides for emergency and the judicious use of opium a number of cases can be permanently cured.

In surveying the literature of epilepsy the evidence points to a toxin which, from the excess of ammouia found in the urine by myself and by Kransky in the blood, is probably an acid which causes a contraction of the abdominal arterial system by stimulation of the vaso constructor nerves of the splanchnic system producing a sudden hyperaemia of the brain.

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Treatment of Gall-Stones.*

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While gall-Stones in the gall-bladder or bile-ducts have never and can never be dissolved or removed by any kind of internal medication, the symptoms may be greatly modified by correct hygienic, dietetic and medicinal treatment, so as to bring about a condition of latency that may give temperory, or possibly permanent relief of symptoms. Hence, there is a medical treatment for gall-stones that may be indicated where there is a condition that contra-indicates an operation, or where the patient refuses to submit to an operation. This may be well understood when we are reminded of the fact that while one in every ten adult persons has gall-stones in the gall-bladder or bile-ducts, 95 present. of these patients manifest no symptoms and the gall-stones are only detected in post-mortem examinations. Notwithstanding this fact, however, it is best that every patient should be operated uqon when a positive diagnosis of gall-stones is made, for the mortality then is practically nil, and it prevents compications that may make an operation difficult and dangerous, or cause death without an operation.

It is now a well established fact that gall-stones are not formed except as a result of infection in the gall-bladder or bile-ducts with infected stagnant bile: the epithelial debris is thrown off and forms a nucleus, around which is deposited the cholesterin, bili rubin calcium, biliverden or other biliary constituents. It is also known that these stones are formed only in a catarrhal form of inflammation, and not in an acuate septic form. It is proabable that the infection usually occurs from the intestinal track through the common duct, bnt but the bacteria may be conveyed to the structures through the blood.

The evolution of gall-stones surgery is practically identical with that of surgery of the pelvic organs, of the kidney, of the appendix, and of the alimentary canal, including the stomach, and very soon not only our best authorities in surgery and in internal medicine, but even the average doctor will recommend surgical treatment in all cases of gall-stones if there are no contra-indications to any surgical operation, where a competent surgeon can be obtained,

Four principle factors must always be considered in gall-stones surgery, namely; Thorough cleanliness; a protection from infection by bile-leakage during and after the operation; the Kocher incision, by which the structures may be brought practically into the external wound; and efficient drainage.

Before Kocher devised this incision by which the liver may be pulled down and rotated forward, gall-stones in the common duct were difficult to reach, and had to be removed deep down in the cavity, but now the duct may often be brought nearly external and operated upon with ease.

In operating for the removal of gall-stones, either in the gall-bladder or in the bile-duct, the simple removal of the stones is but the first part of the treatment, the final success resulting from the establishment of efficient drainage until the infected bile is made sterile, and the inflamed gall-blabder and bile-ducts are aestored to a practically normal condition. This drainage is further of value in the relief of chronic pancreatitis, which so often exists as a result of cholangitis, the infection extending from the common duct into the pancreatic ducts. This has been emphasized and conclusively proven in the work of Mayo Robson.

For the last several years I have had a relatively large experience in gall-stone surgery, and my patients have made such uninterrupted recoveries, and afterward remained so well, that I an positive in my conviction that every case of gall-stone disease diagnosed, should be promptly operated upon, unless there is some contra-indication to the performance of a surgical operation. I have operated for gall-stones where the patient had a temperature 104

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and 105, and thorough by cholemic, the temperature the next day being normal. I have fortunately encountered no excessive hemorrhage in these cases, and I do not believe that the cholemia causes hemorrhage, but that the hemorrhage results from inflammation in the pancreas that interferes with its secretion, thus changing the normal constituancy and coagulability of blood.

I insist upon prompt surgical treatment because of its absence from danger, and because of the danger to the patient by delay. It is not the gall-stones that cause death, but the renewed infection that causes inflammation of the gall-bladder and bile-ducts, resulting in gangrene and perforating, fatal cholangitis, peri-cystic adhesions, abscess of the liver, carcinoma and other dangerous and fatal conditions, all of which are avoided by a timely operating.

I want to again insist upon the fact that the same principle obtains in gall-bladder surgery that we recognize in surgery of the kidney, the uterine adnexa, the appendix and acute intestinal obstruction, It is now recognized that nearly every death that follows an operating in all these conditions could have been prevented, had the operation been timely performed by a competent surgeon. I feel this so keenly that I can never cease insisting upon it, and I cannot fail to stamp my disapproval on every effort otherwise.

This is not always, however, due to the physician, because patients often refuse to submit to an operation until it is too late; but it is a humiliating fact that it is often due to the physician, and sometimes to the surgeon, and it is our duty to educate the profession and the laiety in this particular, so that delays in the future will not be permitted.

In order to accomplish this in gall-stone surgery, we must study the question of diagnosis' so as to be able to detect gall-stones before infection has caused serious injury to the gall-bladder, bile-ducts, liver, pancreas, and other structures of the upper abdominal cavity-

The symptoms of gall-stones in the gall-bladder or bile-ducts caused by re-infection and obstruction are so distinctive that a physician of experience can usually make a correct diagnosis before any structures have sustained serious injury, or complications have arisen that greatly increase the dangers of an operation. Very soon we may be prepared to detect gall-stones of all varieties in nearly every case, by improved methods in the use of the X-Ray. we may then learn if there are few or many stones, their size and morphology, and, much about their structural or chemical formation. The possibilities of what may finally be accomplished by this method of diagnosis, are being rapidly envolved in the recent work of Carl Beck and other expert workers in in X-Ray diagnosis.

The great multiplicity of medicinal remedies, each claimed to be equally efficacious in the cure of gall-stones disease, should of itself be sufficient to convince the well-educated physician that they are all worthless. Such practice if universally acoepted, and surgery excluded for the next fifty years, would be responsible for more deaths than would be sacrificed on the battle-fields of the world; and in this progressive age, he who obstructs the way of medicine and surgery in the prevention and cure of disease, and the prolongation of life, is committing an offense against society, humanity, morals and religion, for which the ethics of his environment will cause the people to hold him to a rigid accountabitity.

The mechanical treatment for the expulsion of gall-stones by massage cannot be too severaly condemned. It can result in no good, but in great injury, and even death. Osler says: "The expulsion of gall-stones from the gall-bladder by digital manipulation as recommended by George Herley, is a highly irrational procedure, not to be followed." And Mayo Robson says in his Text-book on the Gall-bladder and Bile-ducts, page 170: "Were we the subjects cholelithiasis, we would not submit to massage, nor would we conscientiously recommend it to others."

Suggestions as to the Treatment oi Acute and Chronic Gonorrhoea.

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Although gonorrhoea is still looked upon by many laymen and not a few physicians as an insignificant ailment, every thoughtful clinician must regard it as a disease of extreme gravity and confess that a large minority of cases are incurable. Indeed, I should not wonder if future studies revealed that even a majority remain unhealed throughout life. In the male the disease is far reaching, affecting various tissues of the body and causing an infiltration of the prostate, which in later years probably results in hypertrophy. In the female it produces purulent salpingitis, pelvic peritonitis, and other conditions which not infrequently cause invalidism and call for major operations. For some years also it has been recognized that gonorrhoea is one of the most potent factors in the production of blindness.

Looking these facts in the face, it behooves every practitioner who treats a case of gonorrhoea, to realize its true signifi-

cance and to give the patient his best and most careful attention. There are no hard and fast rules which can be laid down for the treatment of either the acute or the chronic form, but in this paper I shall mention a few methods which I have found to be of practical utility. Of course I make no claim that any of them are new or original.

Acute Gonorrhoea, General Directions.—The patient should be cautioned to wash his hands always after urinating or after having given himself an injection, and never to let his fingers touch his eyes. When the discharge is profuse a small cloth pouch containing clean absorbent cotton should be worn; the cotton should be changed frequently so that the meatus does not remain long in contact with the extruded material. If the discharge is only moderate, or after it begins to subside, a pledget of cotton may be placed over the meatus and be held in situ by the prepuce pulled over it.

A large quantity of water, two to three quarts daily, should be taken; this is highly advantageous in that it produces frequent micturition and thus flushes the urethra; it has another marked advantage in that it necessitates urination two or three times at night, which usually prevents chordee.

The diet should be as simple and bland as possible. Milk, eggs, bread and a limited amount of meat should form the base; highly seasoned food and peppered vegetables or meat should not be taken; tea and coffee in the acute stage are better avoided; all alcoholic liquors and carbonated waters are strictly contraindicated. As the acute stage passes off the diet may be more liberal, and almost anything may be eaten except highly seasoned foods.

Excessive work and exercise, which involve overheating and bodily fatigue, are injurious.

Internally, during the first three days I give three tablets of urotropin, each containing 7½ grains, and one at bed time. After three days a 5 minim capsule of pure santal-wood oil is substituted for the tablet.

Locally, I use one of three plans of treatment: (1) An irrigation with potassium permanganate solution immediately followed by an argyrol injection; (2) an injection of a plain argyrol solution; (3) an injection of a protargol solution.

Method No 1.—The first method I think is best and when feasible should be carried out by the physician; the details are as follows: Give the treatment twice daily, ten or twelve hours apart; have the patient urinate always before the irrigation; place him in a recumbent posture, wipe off the meatus with a piece of cotton wet with a 1-1000 bichloride solution; irrigate the anterior urethra by means of a fountain syringe and a cone-pointed glass nozzle with one pint of a 1-3000 potassium permanganate solution at a temperature of 105 degrees F. The vase containing the liquid should not be more than 2½ feet above the patient. After this is finished inject by means of a cone-pointed urethral syringe 3 drm. of a 5 per cent. solution of argyrol and hold it in for 5 minutes. After three days the strength of the argyrol solution is increased to 7 per cent., and after another 3 days to 10 per cent., after another three days to 15 per cent., then in three days to 18 per cent. and then to 20 per cent., and this strength continued for five days. If the patient has a capacious urethra, a 4 drm. syringe should be used. The bladder should not be irrigated unless there are indications of an extension of the disease to the posterior urethra. The treatment as above outlined should be kept up longer if gonococci persist; during this period the discharge does not decrease in many instances, but on the contrary increases and becomes thicker and more purulent. The gonococci, however, usually disappear after four or five days. At the end of 14 days the organisms being absent, I stop the injection of argyrol and continue the permanganate solution (1-3000) for four days longer. I then stop the latter and use the following prescription:

Zinc sulphate, grs. viii,
Alum sulphate, grs. vi,
Carbolic acid, gtts. xx,
Glycerine, oz. ½,
Water to make ozs. viii.

Sig. Three drams to be injected through a cone-pointed urethral syringe twice daily and held in for one minute.

I have found the above method very satisfactory, provided the irrigations can be given by the physician, but when such is not feasible, I use the following:

Method No. 2—When the patient is seen at the very beginning of the discharge, it is presumable that the disease is still located in the anterior half of the penile urethra. In such cases it is better to use a small syringe, holding not more than 2 drms.; if a larger quantity is injected some of the solution passes beyond the diseased area and by irritating and lowering the resistance of the mucous membrane further back facilitates an eqtension of the disease. The patient is directed to urinate before each injection; the fluid then is carefully and slowly injected into the urethra and held for five minutes; four injections should be given in 24 hours, as nearly as possible 6 hours apart. After three days 3 drms. of the solution are used and the strength is increased to 7 per cent.; after two days more it is increased to 8 per cent. and in two days to 10 per

cent.; then to 15 per cent.; then to 18 per cent. and then to 20 per cent., and this strength continued for five days, after which the following prescription is used:

℞ Sol. Adrenalin, (1-1000) oz. ½,
Fl. Ext. Hydrastis (White) oz. 1,
Zinc Sulph. Gr. VI,
Aqua Qs. Oz. VIII.

Three drms. of this is injected twice daily for about two weeks. If the discharge during this period contains any gonococci return to the 10 per cent. argyrol solution and increase up to 20 per cent. as previously done. Internally urotropin and santal wood oil as above directed are given throughout the treatment.

Method No. 3.—Begin with a ¼ of 1 per cent. protargol solution and use it in the same manner as directed for the argyrol; a syringe of the same size is used and the duration of the treatment and the intervals between the injections are the same. After three days increase the strength to ½ of 1 per cent. and after three days more to ¾ of 1 per cent.; if this last is well borne, the solution may be still further strengthened to 1 per cent., but this is not done if much burning or irritation has been produced by the ¾ of 1 per cent. This procedure is kept up for 16 days and the zinc and alum mixture is then substituted.

If after the above treatment the discharge still persists, I employ an irrigation of 500 cc. of 1-10,000 solution of silver nitrate at a temperature of 100 degrees F. three times a week.

When the posterior urethra becomes involved, I use an intravesical irrigation of potassium permanganate (1-6000) twice daily for two weeks, then once a day for another week; at the end of this time the permanganate is discontinued and a 1-10,000 silver solution is employed three times a week.

Chronic gonorrhoea not infrequently is very stubborn and in some cases resists all forms of treatment. The disease in general depends for its existence on three pathological conditions: First, implication of the prostate; secondly, infiltration of the wall of the urethra; and thirdly, invasion of the mucous glands and follicles along the urethra (glands of Littre).

Chronic gonorrhoeal prostatitis is a frequent complication and the more I study cases of chronic gonorrhoea, the more am I impressed with the frequency of implication of the prostate. I should say, making a rough estimate, that from 80 per cent. to 90 per cent. of all chronic gonorrhoeas owe their intractable character to disease of this gland.

On rectal examination the gland is found to be slightly enlarged, irregularly indurated and occasionally nodular. In other instances it is soft and boggy and presents harder areas toward the lateral borders. Still another variety does not disclose any abnormality on palpation, but after massage the expressed secretion contains pus. One should never infer that there is no disease of the gland by the absence of definite palpable signs, but should always have recourse to microscopic examination, which is the crucial test for prostatitis. As a general rule in all cases of gonorrhoea of the prostate, there is also an implication of some portion of the urethra, but the prostatic urethra is usually nearly or entirely free from disease. The treatment of this condition is long and tedious, but by perseverance in carrying out well directed massage of the gland and irrigation of the urethra and bladder, a cure can be obtained in the large majority of instances.

Technique of Massage.—There are two positions which the patient may assume for the massage. I generally prefer to put him flat on his back with the legs drawn up and the knees rather widely separated. Less often I get him to bend over a chair so that the body is about at a right angle with the legs, the operator standing behind.

First a rectal examination is made so as to locate and outline the gland. It can be felt about ¾ of an inch from the anal orifice; at this distance the tip of the finger comes in contact with the lower border of the gland. If the finger is then swept upward for a distance of ¾ of an inch to 1¼ inches, the upper margin of the gland is reached, and by carrying the end of the finger from side to side one finds that the base is about 1 inch to 1½ inches in breadth. In the center, dividing the two lobes, there is a sulcus which corresponds to the track of the urethra; the two lateral lobes may be said, in a very general way, to resemble in shape that of a horse-chestnut, the base being upward and the point downward. When the prostate gland is affected, its form is somewhat changed; it becomes more rounded, perhaps slightly nodular, and the induration which increases its hardness makes it more easy to palpate. From the upper border the seminal vesicles diverge and pass obliquely upward on the under surface of the bladder. In the normal state, when not distended, an experienced finger can palpate them, but they are indistinct. When the bladder is full so that the vesicles are forced slightly downward, the index finger when fully inserted into the rectum can reach nearly to their apex.

After mapping out the land-marks, the finger is passed to the upper margin of the gland and swept downward with a firm pressure along the lateral border to a corres-

ponding point on the lower margin. If the patient is on his back the pressure is directly upward; if he is bending over, it is directly downward. The finger is then passed up again to the upper border, and brought down in a corresponding manner over the gland just inside and parallel to the track already massaged; this procedure is kept up until the whole side of the gland has been gone over, three or four strokes being usually necessary. The other side is then massaged in a similar manner and the procedure repeated first on one side and then on the other until the indurated areas become soft or have decreased in size; three to five minutes is the time required for a complete massage. As a rule from 2 to 15 drops of prostatic secretion are extruded from the meatus during the treatment.

In thin subjects, by making a deep pressure on the abdomen, with the other hand, the indurated vesicles or prostate can be felt between the two hands and in this way massage of the gland can be very materially aided.

After the massaging is finished the urethra and bladder are irrigated with a 1-10,000 solution of nitrate of silver by a fountain syringe, a cone-pointed glass nozzle being employed. If the fluid passes into the bladder with difficulty the irrigation can be done with a soft rubber catheter attached to a 50 cc. syringe. Massage and irrigation should be given two or three times a week, the frequency being governed by the condition of the gland.

In the infiltration form there are localized areas here and there over the anterior urethra or posterior urethra in which the walls of the urethra have been rendered stiff and inelastic by the inflammatory reaction. In places where this process affects a complete circular segment, there is produced a wide or a narrow stricture. A diagnosis of this condition can be very readily made by introducing various sizes of an olive-pointed bougie. Occasionally, when such indurated masses are situated in the penile urethra they can be felt with the finger. The treatment in such conditions consists in sytematic dilatation and irrigation. The introduction of sounds should be practiced with extreme delicacy, so as to produce the least possible trauma. Except in the case of a tight stricture their introduction should never produce any bleeding. The best method is to use two at each treatment, beginning with the largest one that will slip easily in; it should not be necessary to use any force to make it pass the indurated place. Suppose that we begin with a No. 22 (French),—this is allowed to remain in for five minutes, and then No. 23 is passed and left in for five minutes. After one week, a No. 23 and a No. 24 are used in the same way; after another week Nos. 24 and 25, ond so on up to Nos. 28 or 30. I rarely employ a larger sound than No. 28 (French). After the maximum size is reached, the sound is introduced once a week for five or six weeks. After each dilatation an irrigation of silver nitrate, 1-15,000 is given; this strength is gradually increased up to 1-5000 in the following manner: First, 1-15,000 for two treatments; next 1-12,000 for two treatments; next 1-10,000 for four treatments; next 1-8000 for two treatments; next 1-7000 for one treatment; then 1-6000 for one treatment and then 1-5000. An irrigation is given immediately after each sounding and another in the interval, i.e., three days after the use of the sounds. If one can be sure that the anterior urethra alone is involved, the irrigation is used only anteriorly, but if there is any doubt about the posterior tissues, the whole urethra and bladder are to be irrigated. If after a reasonable length of time, say three months, the improvement is not satisfactory, the sounds and irrigation are discontinued and twice a week an injection of 3 drms. of a ¼ of 1 per cent. solution of sulphate of copper is employed. This is injected from an ordinary cone-pointed syringe and held in the urethra for one minute. It produces some burning and is followed by an increase of the discharge which lasts for two days. After four weeks of this treatment it is discontinued, and if necessary the silver irrigation and the sounds are again used. If after a period of four more weeks trouble is still present an injection of ¼ of 1 per cent. picric acid is substituted. This is employed, in the same manner as the copper, twice a week. This agent causes a very extensive exfoliation of the epithelium, some of which is cast off in large flakes. At the end of four weeks the patient is given a complete rest, so as to allow all irritation to subside. If after this time the discharge is still present, recourse is had again to the silver irrigation and weekly soundings. It is well from time to time, during the treatment, to stop all medication for ten days or two weeks. Not infrequently the discharge is kept up by the interference and will subside during the period of rest.

Some cases do well on two treatments a week, others require three; but once a week with the sounds is sufficient; the other two treatments consisting of irrigations or injections alone.

In those cases which show a prostatic involvement, in addition to the above condition, the prostate should be massaged twice a week, but not on the same day on which the sound is introduced.

The third form, that of glandular involvement, can be positively diagnosed only by endoscopic examination, but a relative diagnosis can be made by excluding the other two forms. The treatment of this type consists in massaging the urethra twice a week on a sound and afterwards irrigating with silver nitrate and potassium permanganate. The method is as follows: Insert a No. 25 sound well down to the perineum, then massage the urethra externally with one hand firmly, but gently, for five minutes, the sound being kept steady with the other; after this irrigate with a 1-6000 permanganate solution intravesically. This is done twice a week—say on Tuesdays and Saturdays—and between these two treatments an irrigation of silver nitrate, in strengths as given above, is used. This treatment should be kept up continuously for three months and longer if the improvement is satisfactory; if there is no improvement, the use of the sound should be discontinued and an irrigation of silver given twice a week for another month; if the condition is still unsatisfactory, one of the silver irrigations is stopped and the copper solution used in its place for two weeks; at the end of this time another course of massaging and silver are employed.

The time required for the cure of a chronic gonorrhoea is from two to twelve months, the average time being about six months; the proportion of incurable cases I do not know, but I think that fully 15 per cent. to 20 per cent. resist all forms of treatment.

In some instances the patient, in addition to the treatment above outlined, uses at home a daily irrigation of a 1-3000 hot permanganate solution, or a weak injection of ¼ of 1 per cent. protargal solution.

Restriction of the diet in chronic gonorrhoea does not seem to be necessary. Alcohol, particularly beer, and sexual intercourse are contraindicated.

In cases of gonorrhoea, whether acute or chronic, when secondary organisms--staphylococci and bacilli—are present I employ an irrigation of bichloride of mercury solution (1-50,000) daily until they have disappeared.

When is a gonorrhoea cured? So long as the patient has a discharge which contains pus or has shreds in his urine which contain pus, he probably still has gonorrhoea and should not be discharged nor allowed to marry. The absence of gonococci in the discharge in chronic gonorrhoea proves nothing and I personally am not influenced by their absence and am governed only by the presence of pus. It is the custom of some physicians to consider that a gonorrhoea is cured as soon as the discharge has ceased; such a conclusion is to be deprecated. Others allow their patients to marry when after a prolonged search for gonococci they are not found; such a course I have seen followed by disastrous consequences. A discharge which is made up entirely of mucous or entirely of epithelial cells, or of epithelioid cells and mucous, without pus, is not gonorrhoeal and should not be a hindrance to marriage, but whenever pus is mixed with either or both, the patient probably still has gonorrhoea.

Note:—The treatment both in the acute and chronic form by vaccination with a dead culture of the organism, governed by the opsonic index, as discovered by Wright, is possibly of great value, but as yet the method is too young to draw any definite conclusions from it.

The Infant's Stomach. (X-Ray Examinations.)

Leven and Barret (Presse Medical, No. 63, 1906). The authors performed comparative radiographic examinations of the stomach in adults and in infants, with the following results:

1. Shape and position: In adults, the stomach has a distinctly perpendicular position with a right and a left margin, corresponding to the greater and lesser curvature. A considerable portion of the stomach is contained in the right hypochondrium, only the pylorus projecting somewhat towards the right beyond the median line. In infants, the aspect is entirely different, for the stomach cavity occupies a distinctly transverse position in the picture, the greater curvature forming the lower, nearly horizontal, margin. A considerable portion of the stomach extends beyond the median line towards the right underneath the liver, by which it is covered in part.

2. Lower boundary: In the normal condition, the lower margin of the stomach in adults reaches as far as the umbilicus or its vicinity. The pylorus, which constitutes the deepest point, remains fixed or is very slightly displaced. In infants, however, the deepest point is formed by the middle portions of the greater curvature, and its position is subject to change within wide limits. When the infant's stomach is full, the greater curvature reaches as far as the umbilicus, becoming subsequently raised to rather a high level. In certain cases, the inferior boundary of the stomach may actually exceed the umbilicus.

3. Mode of repletion: The adult stomach adjusts itself almost exactly to the contents. Only in the presence of gastric dilatation, repletion resembles the filling of a large bag with a pre-existing cavity. This process, which would be pathological in the case of

adults, is normal for infants. When a small amount of fluid is introduced, the stomach unfolds itself to its entire extent, and the fluid is seen to accumulate in a horizontal layer at the lower margin. The remaining portion of the stomach is filled with air and appears as a clear zone, distinctly differentiated from the dark masses of the abdominal organs. As the amount of fluid is increased, the quantity of air is diminished, the upper level of the fluid rising steadily higher.

4. Evacuation of the milk: For a few minutes after nursing, the infant's stomach remains quiescent. Then it suddenly contracts almost to the shape of a ball, the air chamber disappearing or remaining barely visible. In this condition the stomach persists for a long time, probably up to its complete evacuation. The reappearance of the air-chamber constitutes the gradual transition to a state of emptiness. In adults, this contraction of the entire stomach is only exceptionally observed; but contractions of the pyloric region are practically constant.

5. Duration of sojourn of milk in the stomach: The investigations were conducted on infants of from two to sixteen months of age, who had been fed either with mother's milk or a mixture of cow's milk and water, in quantities of from 80-175 ccm. The evacuation of the milk in these infants was found to require one hour and three quarters to a little over two hours. No difference seemed to exist in this connection between mother's milk and cow's milk diluted with water.

Obstacles to Sanitation in India.

Rats are causing immense injury in the central provinces of India, but little can be done in the way of getting rid of them, as the Hindu population object to killing them. As a method of meeting the difficulty, Mr. Ram Narayan, a native banker, proposes, the Journal of Tropical Medicine states, to provide a "ratruksha," or sort of pen, in which captured rats may be confined as pensioners for the natural term of their lives, the sexes being kept apart. The suggestion has been gratefully received by Major Buchanan, I.M.S., who is in charge of the plague operations. The difficulties of managing for superstitious people are great. It is often a very great political advantage to have a man at the head of affairs who, instead of riding roughshod over native ideas, will accept other means, and attain his end. —The General Practitioner.

Sterilization of the Hands.

Apropos of the various procedures in use for sterilizing the hands Leedham-Green says that unless the hands are in an exemplary cosmetic condition good results cannot be obtained by any method. A roughened or chapped hand does not admit of disinfection. Even after the most prolonged and energetic washing of the hands in soap and hot water, it is not possible materially to diminish the number of microbes on them, and there is no advantage to be gained by unduly prolonging this washing process, as the hands never become sterile, and, owing to the loosening of the epidermis, generally appear more infected after than before the washing. The use of turpentine, benzoline, or xylol during or after the washing with soap and hot water, or of soaps to which antiseptics had been added, does not appreciably improve the results. The aqueous solutions of carbolic acid, lysol, perchloride, or biniodide of mercury are practically powerless to affect the microorganisms situated on the hands, and the use of these antiseptics after a thorough preliminary washing of the hands utterly fails to render them sterile. The use of a saturated solution of permanganate of potash followed by the application of strong oxalic acid gives wholly inadequate results. Alcohol, owing to its property of hardening and fixing the superficial cells of the epidermis and its marked bactericidal action, possesses a remarkable power of sterilizing the hands, far surpassing that of all other agents. Of all the methods tested, the best results were obtained by the following modification of Furbringer's process: (a) The hands are first scrubbed for five minutes with soap and very hot water (about 50 degrees C.), the water to be frequently changed. The use of sterile sea sand as an addition to the nail-brush is an advantage. (b) The hands are then rubbed with methylated spirit for three minutes. (c) Afterwards scrubbed for a minute or two with 70 per cent. sublimate-alcohol (1 in 1,000). (d) And finally rubbed until dry, and polished with a sterile cloth.—Birmingham Medical Review.

A Simple Truss for Children.

An efficient, cheap, and cleanly truss for use in cases of inguinal hernia in infants is described by Fiedler. It consists of an ordinary skein of zephyr wool which is provided at one end with two tapes. The skein is passed about the child's body, and the end having the tapes is slipped through the loop and across the inguinal region between the legs. It is then secured in this position by tying the tapes around the legs. A number of such skeins are kept on hand and washed as often as necessary. The efficiency of the device is increased by placing a small pad over the hernia.—Zentralblatt fur Chirurgie.

Charlotte Medical Journal

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NEEDED MEDICAL LEGISLATION.

It has been for a long time evident to every thoughtful member of the profession in our State that there is sore need of some sort of legislation to increase the preliminary educational requirements for those who expect to enter the ranks of the medical profession in North Carolina. There are to those who know—and the facts are available for anyone who desires to investigate the matter—every reason for hoping that a step will be made during the present sitting of the Legislature to remedy this thing. We do not hesitate to venture the assertion that any member of the present or of a former State Board of Medical Examiners will bear witness to the statement that the vast majority of failures in the annual examination are due less to the inadequacy of medical teaching than to neglect of elementary education. Young men seem to conceive the idea that all they need in the world is license to practice medicine, thinking, perhaps, that the world is waiting to receive them with open arms and that "all these things shall be added." They do not realize the value —yea: verily the necessity of some preliminary education until, having entered upon their medical studies, they either find or fancy it too late to turn back. And so, woefully crippled, the student limps through a medical course only to find himself broken when the weeding out by the State Board comes.

Only twelve States in the Union have any law whatever regarding preliminary education for candidates for license to practice medicine. New York probably stands at the head; some of the others have requirements so insignificant that they amount to none at all. We believe the time has come for something to be done. Inevitably must the high esteem in which the medical profession has been held suffer a decline unless efforts are made to maintain it. We would utter no word against the progress made in medical teaching, the length of time the student must devote to his medical course, and the numerous branches he must master before the medical school deems him worthy of the degree of Doctor of Medicine. This is one great argument why he should possess a good preliminary education. On the other hand for financial reasons alone the majority of those who begin the study of medicine would find it difficult—perhaps impossible—to spend four years in a collegiate course and then four more in their medical studies. It is true that the student is able to shorten these courses in many of our institutions by combining certain branches, yet considering all this only a few are able or willing to obtain a college education, or even a part of one. At least, however, every student may possess a high school education, such as would enable him to enter college, such a knowledge of the English language as would enable him to express intelligently what he should learn in medicine. Every physician in North Carolina—he who possesses a college degree because he knows its inestimable value, and he who has gone into his work with little preliminary education, because he realizes how his life has been crippled—will acknowledge the need of some measure by which the standard may be raised and fixed. It may be claimed that such a measure is unnecessary, and there are some who will say that the State ought not to fix such requirements. Naturally there would be some opposition to the passage of this measure. It is said that the medical schools are gradually raising their entrance requirements and that eventually the desired result will have been reached without interference on the part of the State. We have three medical schools in North Carolina. They matriculate, and perhaps for a great many years will continue to matriculate, only a very small proportion of those students who eventually come before the State Board of Medical Examiners here in North Carolina. Certainly we can scarcely hope for any tangible relief from such a source. The vast majority of the medical schools in this country do not require that the student have any more preliminary education than will enable him to read and write. Granted then that it is even probable that medical schools will some time or other succeed in raising their entrance requirements so that a student must at least have obtained a high school education; when may we hope for this Utopian ideal to be realized? The majority of applicants for examination have received their medical education from schools outside, over which we can have control in only one way, viz: by raising the preliminary requirements and establishing an invariable standard with which all must comply. There is no doubt that in the distant future the Association of Medical Colleges will succeed in doing this; within the past few days Yale medical school has required its matriculants at least to have passed examination for entrance into a recognized college.

But why should we wait for something which promises to come some day? North Carolina has been a pioneer in more than

one movement. Something should be done right now. That it is needful is perfectly evident to all. Then why hesitate? It is true that such a measure might in certain cases prove a hardship, but provision can be made in such instances. In the case of a doctor who, after having practiced in another State perhaps for a number of years, might desire to remove to North Carolina, some consideration ought to be given to his experience, but there would be no difficulty in making provision for him. It isn't the intent of this article to suggest the form this measure should take, but we do believe the time has come for the profession to bestir itself without hesitation.

Elsewhere in this issue we review an article on *Serum Treatment of Non bacterial Diseases*, written by Dr. Norton R. Hotchkiss, of New Haven, Conn., and published in the Yale Medical Journal of December, 1906. Dr. Hotchkiss, who by the way is a native of South Carolina, discusses a phase of the subject of serum therapy of which hitherto we have seen little notice in scientific publications. The successful inoculation treatment of several cases of Graves' disease gives promise of good results. Most of the work attempted in serum therapy has applied especially to bacterial disease but more recently investigators are including other diseases.

It is said that this is the era of young men. Truly the young man rules the world. Yet, in these days when commercialism insidiously threatens many of the fine old traditions of the medical fraternity, when the pure professional spirit which characterized the old practitioner is passing into something nearer akin to the spirit which actuates mere animals, when the family physician is already an individual of almost historic interest, there are still some who venerate the old man. The youth of today have scant reverence for him whom they term "old fogy." Advanced in years he may be, yet he is ripe in experience. Although he is sometimes behind the times, he isn't always out of date. Often he retains much of the charm and originality which characterized the practitioner of fifty years ago. He may prove a veritable fountain of inspiration to the young man who is willing to learn a thing or two. One who has spent a good many long, honest years in the service of humanity without once being left behind in the march of medical progress, whose ideas always possess the freshness of thought with some of that attractive quaintness of expression which is the despair of younger writers, is Dr. J. N. Upshur, of Richmond, Va. In a paper read by him before the Richmond Academy of Medicine and published in the Virginia Medical Semi-Monthly, he reviews, in charmingly reminiscent mood, the progress in medical science during the past 40 years, after which he individually eulogizes those of his contemporaries, in Richmond, who have "one by one crept silently to rest." One catches some of the spirit of brotherly love, the self sacrifice and devotion which pervades his words and which inspired the doctor of former days to guard his brother physician's professional honor as his own.

UTILITY OF THE AUTOMOBILE.

In the January "Review of Reviews" there is an article which discusses in a very entertaining manner the practicability of the automobile. To many physicians—and not alone those who dwell and practice in cities and towns, but also to many of the country doctors—this article would be of interest, because not a few of them are investigating more or less seriously the question of substituting the automobile for the plodding old horse. It would repay any one to read it and more especially those who really are contemplating the purchase of a motor.

One hears—chiefly from those who do not know and from those who sell motor cars—that the expense of keeping and running a small runabout would be considerably less than the cost of keeping a horse and employing a driver. Theoretically, counting only the cost of gasoline and lubricating oil and, as you are informed, an "occasional bill for repairs," this is very alluring, but nothing more than a delusion. This statement is made by a man who ought to know: "The prospective automobile purchaser must realize that even though he buys a runabout, he is not going to be able to keep the car in operation for $5 or $10 a month. It has often been said, and truly, that it is not the first cost of an automobile that counts so much as the maintainence expense. It may be possible for a man with a small car who motors modestly to get along with an expense of $20 or $30 a month if he has good luck and handles his car carefully and considerately, but the average cost of maintainence will be from $50 to $300."

The town physician who has paved streets and few hills to climb would probably not find the expense near so great as the last estimate given. On the other hand it must be conceded that for physicians the motor car is wonderfully helpful. It is very much less troublesome than a horse and buggy and for night work especially when we must either hitch up the nag alone or walk

or hire a street carriage, it is just here that one finds the motor car so convenient.

There is no question that one automobile can do the work of several horses, and this is another fact in favor of the motor car. A physician who must keep three horses finds the car much more economical.

As the first cost of these machines diminishes and as their efficiency increases—two things which must necessarily come about, proportionately will they become more and more indispensable to the physician.

SOME MODERN VIEWS OF FIBROID TUMORS.

Until a very few years ago the classical teaching with regard to fibroid tumors of the uterus was that they should not be removed without a definite symptomatic indication for such operation; that they usually underwent atrophy at the climacteric, and that unless producing marked symptoms they were not a menace to life.

Within the past decade this teaching has become radically changed. Careful analysis of large numbers of cases proves conclusively that fibroid tumors are decidedly dangerous growths, in that they frequently undergo malignant degeneration, are commonly associated with well marked disease of the uterus and appendages, and may readily become inflamed, or even necrotic. As a direct result of these findings the tendency today is, in broad terms, to consider the presence of a fibroid the indication for its removal.

The debatable ground is limited to small tumors, especially if these be interstitial or subperitoneal, and not producing any subjective evidence of their presence. The literature upon this subject is all of recent origin and is traceable directly to the more systemic pathological study of specimens obtained by operation.

C. P. Noble, who has been most active in insisting upon this modern view, has collected 1188 cases of fibroid tumors, from which an analysis may be made as to the nature of the degenerations and complications of these growths. A study of these cases shows that about 16 per cent. of the patients would have died without operation, because of the necessarily fatal degeneration present. From the complications existing outside of the tumor another 18 per cent. would have died. It must also be noted that a certain percentage of these women would have died as a result of the anemia caused by hemorrhages from the tumor, or pressure on various vital organs. It may be said then that at least a third of the patients represented in Noble's statistics would have died without operation.

Upon the other hand the operative mortality must be taken into account. To again quote Noble, the mortality of supravaginal hysterectomy in America is about 4.9 per cent. In complicated cases it may rise to 10 or 20 per cent. Comparing these figures with the statistics given with regard to cases operated upon, the advantage would be overwhelmingly in favor of universal operation.

It is, however, also fair to include post-operative complications not necessarily fatal in termination, in deciding in favor of the radical, as against the so-called, expectant form of treatment. It is unquestionably true, though not frequently referred to, that many women after hysterectomy, or indeed any abdominal section, never regain their normal health, in fact are not so well as before operation was undertaken. The cause of such condition is sometimes hard to find:—thus traumatic hysteria, embolism (in such location as not to be fatal) and so common after hysterectomy for fibroid, adhesions, and the results of the surgical menopause, may all be factors in transforming a patient into an invalid, frequently for life, who while carrying the fibroid was practically unconscious of its existence. These causes are too commonly ignored in the analysis of operative results but constitute an important minority of patients who have been subjected to surgical measures.

Taking all these facts into consideration, however, it would seem rational to generally advise the removal of a fibroid tumor when its presence is discovered, the exception to the rule being small tumors in young or very old women, and where the growths are interstitial or subperitoneal and do not produce symptoms.

Generally speaking, the epigram holds true that the only indication for the removal of a fibroid tumor of the uterus is a knowledge of its presence.

SAMUEL SPENCER.

It is never an easy task to estimate the value of a human being. A man is known by his deeds; but, in most cases, no appraisal of his virtues or of his value to a country or community is made until after his death. Everybody knows that Sam'l Spencer, in building up the magnificent Southern Railway System, has accomplished a great deal toward the development of his Southland. Yet this whole section did not realize what his life's work meant until he was killed in the fatal accident on his own railroad on Thanksgiving Day, Nov. 29. "Born and reared in the South, and identified by my life's work with Southern interests, I feel that I have a right to speak to you as one of your own people." These words we quote from an address delivered

by him before the Alabama Agricultural Association, at Montgomery, Alabama, Oct. 25, '06. They prove him what we believe he was—a true son of the South. The Journal could add nothing to the many tributes to his worth and greatness. It merely expresses its sorrow and sympathy. A reprint copy of the above-quoteb address on "The Relationship of the Railroads to the People" has but today come to this desk. It is worth the careful perusal of all, because it deals wisely and impartially with a problem of economics of greater or less interest to all—alike to the farmer who has but a few bales of cotton to market and to the manufacturer whose spindles are numbered by thousands.

Occasionally one hears a dissenting voice raised against ideas which seem almost universally to be accepted as facts. It isn't by any means always a dissent arising from ignorance or narrowness and we have neither the right nor the desire to question the honesty of a man's belief. But when one reads an admirably written argument against the theory of the transmission of malaria by the mosquito, it does seem strange that it is possible for a man to doubt its truth. In the Virginia Medical Semi-Monthly of January 11, '07, Dr. T. J. Taylor writes an article entitled "The Mosquito Theory of Malaria—Is it true?" The tone of which is, to say the least, rather skeptical. In this case Dr. Taylor gives abundant evidence that he is familiar with the most important literature on this subject—facts which, to the vast majority of medical men, seem incontrovertible. We are not sure that this gentleman succeeded in proving anything except that he doubts. Once in a while some one raises his voice strenuously against the practice and efficiency of vaccination as a preventive measure against smallpox. There recurs to the mind of the writer at least one instance of a doctor of our own State who held, and perhaps still holds, to the belief that we have no such disease as smallpox within our borders, and who bitterly resented the stand taken by almost every other doctor in the State to the contrary.

However, we question no man's right to an opinion and our sole reason for speaking of it is because it appeals to our sense of humor—that one man should question the faith of the whole world.

ACCURACY IN THERAPEUTICS.

On the part of the medical profession there has been and is a rapidly growing demand for greater accuracy in materia medica and therapeutics. This is observed in the various medical meetings where certain doctors with eloquence and reason advocate the use of the active principles of drugs rather than the commonly used officinal preparation. We know at least one medical journal whose chief endeavor is to urge the use of active principles. Congressman Webb of our own State has been most actively engaged in securing legislation by which drug manufacturers shall be compelled to place pure products, preparations of known strength and formulæ, on the market. The American Medical Association has a specially appointed Council whose business it is to investigate old and new drugs and preparations, reports upon which appear in the Journal of the A. M. A. from time to time. All these things merely evidence the growing demand for purity in drugs, constancy in strength and exactness in dosage. Manufacturers of galenical preparations have recognized this demand also, and are offering to the profession what they term "assayed or standardized tinctures and fluid extracts." This shows an entirely laudable spirit upon the part of manufacturers, and it is no doubt commendable. Preparations of more or less uniform strength and reliability will do much toward simplifying therapeutics. It is, however, only "a step in the right direction, a single step, in the evolution of an exact and definite materia medica, and to stop there would be to rest on a broken reed."

We quote from an article by Dr. Wm. J. Robinson in the Medical Record of Dec. 29, '06. Dr. Robinson undoubtedly proves that present methods of standardization are unreliable and inefficient. He thus summarizes his arguments: *Standardization is useless:* (1) When the active principle fully represents the drug and worse than useless, because the active principle offers indisputable advantages in (a) smallness of dose, (b) convenience of administration, (c) exactness of dose, (d) freedom from objectionable and irritating inert material, (e) non-changeability, (f) non-variability, (g) more rapid absorption. (2) When the active principle does not fully represent the drug in every respect, standardization of one active principle is worse than useless, because it gives no information as to the absolute and relative amount of the other active principles, and does not provide for the removal of antagonistic principles."

"*Standardization is unreliable*, for even if the galenical preparation, when made, contains the exact percentage of active principles the latter soon begins to deteriorate; changes in temperature, exposure, evaporation, cause a change in the menstruum, which in its turn produces precipitation, &c. That such deterioration is actual, and not hypothetical, has been pub-

licly acknowledged by one of the most prominent manufacturers of galenical preparations."

"*Standardization is unscientific and imperfect* Processes of assay as found in the Pharmacopœia, which one would expect to be reliable and to give definite results, have been declared by the highest authorities to be impractical, utterly unworkable—and to give discordant results in the hands of different chemists."

He ends by saying: "All this being the case—and that it is the case is publicly acknowledged by the manufacturers of galenicals and adherents of standardization themselves—is not the question legitimate? What is it all for? Why not go to the root of the matter, give up most of the galenicals, and use, wherever possible, the active principles instead?"

DESTRUCTION AND ELIMINATION OF BACTERIA.

Within the body bacteria usually first enter the lymphatic channels and are carried to the neighboring lymph glands. Here they may be destroyed by the bacteriolytic action of the cells or may break through the lymphatic barriers and invade the blood. Within the blood they must contend against the germicidal activities of the plasma, the phagocytic action of the leucocytes, and the bacteriolytic properties of both the white and red corpuscles. Should they successfully resist these various agents, there remain certain organs containing cells having well-marked bactericidal properties. Of especial importance is the liver. If suspensions of bacteria be introduced into the portal vein, many organisms otherwise virulent will be overcome by the hepatic cells, so that the blood leaving the liver will be found to contain either no bacteria or bacteria much reduced in virulence. This action has been shown to be well-marked against the bacillus of anthrax and staphylococcus aureus. In general the bactericidal power of the lungs seems to be much less than that of the liver; yet against streptococcus pyogenes the lungs show a well-marked protection, while the liver has but little. It is believed that the kidneys nearly equal the liver in bactericidal activity, while the brain seems to possess this power in but slight degree. Although not experimentally demonstrated, the action of the red bone marrow may be very important, and may explain why injuries to bones in the young apparently may determine the localization of tuberculosis.

Bacteria seem to be eliminated by the usual emunctories, especially the skin, the intestinal tract and the kidneys. In health, the mammary glands are apparently not an exit for the bacteria in the blood; but the experiments of Balch, Wellminsky, and others indicate that in severe or long continued illness they may thus be eliminated. Tubercle bacilli have repeatedly been found in the milk from tuberculous cows free from demonstrable disease of the udder. Clinical observations indicate that a similar elimination may occur in women.

Bacteria may remain for long periods of time within the body after the subsidence of the clinical symptoms of infection. This is exemplified in the persistence of diphtheria bacilli in the throat and nose, of tubercle bacilli in encapsulated foci in the lungs, and of typhoid bacilli in the intestines, gall-bladder and urinary tract.

Review of Southern Medical Literature

The Southern Practitioner, Dec. 1906.

The Opsonic Treatment in Diseases of the Skin.—Dr. J. M. King says that this treatment is limited to bacterial infections and is most favorable in those cases having a low opsonic index. For the sake of illustrating the plan let us assume that we have a case of pustular acne to treat. The first thing to do is to examine the pus to determine the organism present. Next find the patient's opsonic index. If it is low vaccine inoculations should be made. A vaccine, as it is understood here, is a standardized sterile emulsion of organisms found in the pus of the lesion. Under aseptic precautions inject into the patient a vaccine of two hundred and fifty million cocci. When this is done it becomes very interesting to watch and observe what takes place in the patient. Immediately following the injection there is a fall of the opsonic index, but a reaction soon takes place and the index begins to rise and within four to six days the index will reach normal and go above it, remaining stationary for a few days and begin to fall again. The curve will graphically represent the exact conditions. The falling index is called the "negative phase," the increasing index is called the "positive phase," the stationary condition is called the "high tide." The patient's blood is kept under examination and when the second "negative phase" appears and the index is returning to normal another inoculation with vaccine should be made. The index continues to fall after the second injection is given, but reaction soon follows and the index shoots up again, probably higher than before, remains stationary and begins to fall. In such cases an inoculation should be made about every ten days, but in all cases they should be controlled entirely by the index. After a few inocu-

lations, as a rule, marked improvement will be observed in the patient.

According to observations made upon tubercular patients using the opsonic index as a control an injection should be given about every three or four weeks. Suppose an inoculation is given three days after the first the index would continue to fall and if this procedure should be kept up the index would never react normal and the patient would not improve. Tuberculin has been administered in this way and it is obvious now why it gave no relief. The patient's powers of resistance were actually lowered instead of raised. Now for the first time we can administer the new tuberculin intelligently.

Southern Medicine and Surgery, December, 1906.

Prostatic Albumin and Albumose.—Dr. E. Balleuger points out that the presence of albumin and albumose in urine voided after massage of the prostate when that before is normal is as reliable in the diagnosis of prostitis or an abscess draining into the urethra as renal albumin is in the diagnosis of kidney disease. This was constantly found in thirty patients with inflamed prostates. In two of these with acute prostatitis the first urine for a few days showed as much as 1 per cent. of protied. The urine of one patient with an abscess draining into the urethra was so albuminous when the abscess first ruptured that the entire volume of urine was curdled by heat and nitric acid. This gradually cleared up and the abscess improved. In none of these three cases was there any evidence of renal disease. The test was negative in eighteen patients with healthy prostates and vesicles. The recognition of this prostatic and vesicular protied affords a very simple method of making a positive diagnosis of prostitis and seminal vesiculitis (when in excess) and is available in obscure cases whether a microscope be at hand or not. An overflow of the secretions from the prostate or vesicles may contaminate the urine and mislead one as to the significance of the protied present. In doubtful cases it should be eliminated by obtaining urine for examination ten or fifteen minutes after massage of the prostate and vesicles and a thorough irrigation of the urethra and bladder, or if this fails by the history, the absence of symptoms of nephritis and of casts, and if necessary by urethral catheterization. Owing to the alkalinity of the prostatic secretion and to the fact that dentrs albumose the protied constantly found in chronic cases is not precipitated by boiling; the best test as ordinarily applied will not be satisfactory, as many times no cloudiness will appear in the part of the urine boiled. Picric and citric acid will, however, produce a cloudiness if added to the boiling urine and allowed to stand until cool. This will disappear when again heated if due to albumose. Roberts' solution, as modified by Boston, containing one part of nitric acid to ten parts of a saturated solution of magnasium sulphate applied as a layer test will demonstrate small quantities of albumin or albumose. A study of these secretions has led the author to conclude that spermatorrhea instead of being a neurosis or due to patulousness of the seminal ducts is really caused by a low grade of inflammation of the seminal vesicles and the ampullations of the vas deferens. The inflammation causes an increase in the secretion and this mechanically washes out the spermatorrhœa when expressed by muscular exertions or otherwise.

Texas Medical Journal, December, 1906.

The Duty of the Government to its People.—Dr. F. E. Daniel believes that few persons outside of the medical profession have an intelligent knowledge or even a conception of the extent of the devastation wrought by tuberculosis. According to the U. S. Census Reports there died from consumption in the United States in 1900 111,000 persons as far as reported. The registration districts in the States where records are kept and reports made embrace only about one-third of the population; that is the rural population is not represented in these reports. A calculation based on this fact and on the given ratio would give us a total for 1900 of 145,000 deaths; and for the census year 1890, 154,000, or an average yearly of about 150,000. For every death from yellow fever there are 150 deaths from consumption, compared with consumption yellow fever is a minor danger; yet the people become demoralized, institute shot gun quarantine, tear up railroad tracks, destroy bridges, and the authorities lock the wheels of commerce for months, thereby entailing losses estimated at millions of dollars. It is estimated that for every death from consumption there are five sick, the very large majority of whom are doomed to death. If 150,000 die annually it means 750,000 sick and more or less disqualified for any kind of labor; three-quarters of a million sick and doomed to death from one preventable disease; or in a decade seven and one-half millions; 10 per cent. of the entire population of America! That much has been done in the direction of controlling the ravages of consumption by government, State and nation can not be denied, and the mortality in recent years has been greatly decreased. Much has been done in the reforms in tene-

ment life, and also in privately owned institutions. But the States, as a rule, have not taken action. The author knows of only two U. S. Government sanitoria for consumptives. These are in New Mexico; one for the army and one for the navy. The United States has no public health department. There is no organization that exercises the functions of a public health department; but the Marine Hospital Service and all its labors are toward the prevention and control of epidemic diseases of foreign origin. Not a dollar, so far as the author can find out, is expended toward the prevention of any of the many diseases that originate in our midst and which destroy more lives than all the epidemics combined.

Gaillard's Southern Medicine, Dec. 1906.

Diagnosis of Certain Affections of the Liver and Biliary Apparatus.—Dr. G. P. LaRoque concludes this article by saying that he wishes to emphasize the importance of an appreciation of the great frequency of bile tract infection. It is now generally recognized that this is the real underlying cause of gall stones as well as of the signs or cholelithiasis and its indications for treatment. Gall stones in a healthy bile tract are frequently "latent" save for otherwise unaccountable gastric catarrh of moderate or mild degree. When, however, to these and to infection bile straugulation, traumatism, and other forces calculated to act as local devitalizing agents are added the signs of bile tract inflammation betokens trouble. It is the infection which in the great majority of cases causes symptoms. So also with many cases of malignant disease and new growths of the bile tract and liver. Every case sooner or later becomes complicated by concomitant inflammation of the biliary apparatus which generally terminates life. Even mild infections are damaging in their effects, and when prolonged or supplemented by local or general feeble resistance ultimately productive of fatal lesions. Most cases of hepatic cirrhosis are in reality dependent on infection acting upon a liver non-resistant from alcoholic abuse, and many cases of this infection in its hypertrophic stage have been cured by prolonged artificial drainage of the gall bladder and hepatic ducts.

It has long been known that malignant disease of the liver was in at least one-third of the cases secondary to carcinoma of the intestinal tract, and that the method of extension was practically always through the portal circulation. So that a diagnosis of carcinoma of the liver implies always a careful search for a primary lesion in the alimentary tract.

The frequency of abscess of the liver following injection of pure carbolic acid in the treatment of hemorrhoids has been noted often and is sufficient to forbid its employment. Every practitioner recognizes now the great frequency of bile tract infection following typhoid fever. Indeed many, and the author believes he is not the only one to diagnose gall stones in the absence of a history of this infection.

The American Practitioner and News, December, 1906.

The Epileptic.—Dr. T. P. Satterwhite says that superintendents of insane asylums recognize that there is nothing in common between the lunatic and the epileptic, and it is a source of the greatest anxiety regarding their management and control. Further many epileptics become inmates of prison cells and the courts are forced to hold such criminals irresponsible, and not a few communities have been plunged into sorrow deep and ineffaceable by their acts. This affliction is not a vice and should not be neglected so as to thwart all efforts at relief. The segregation of epileptics will be of incalculable value for investigation in psychiatry and this investigation is an education for the physician by improving their powers of observation and scientific judgment. It makes them better physicians and the patients under their care reap inveritably the benefits of better diagnosis and expert treatment.

The cause of epilepsy is absolutely unknown, and that the whole field is open and courting investigation—the knowledge will come in the form of single and isolated facts, which must be corrolated and laid in their respective places awaiting the day when all the solitary facts will have been discovered and recognized and arranged in their proper position. The rapid growth of population and consequently the influx of epileptics, together with the normal accumulation of dependent epileptics, should demand of our State that a colony should be provided. It is admitted that institution life is best adapted to the peculiar needs of the epileptic where his life may be systematically regulated and where he may find opportunity to turn to useful account the faculties which the disease has not already impaired, and which are capable of further development, and where he may find encouragement in the thought that all that science and philanthrophy can do to cure him is applied for his benefit.

The Medical Recorder, December, 1906.

General Paralysis of the Insane.—Dr. Kaffie divides the course of paresis into three periods. The prodromal is the first,

and then we have the second in which the mental and physical symptoms become fully developed. The third stage is the terminal stage, during which dementia becomes more marked and finally terminates in death. The first period may extend over a number of years and in a number of cases it is very hard to distinguish paresis from a number of other nervous diseases. A person who is of a naturally nervous type and in whom there is a marked family predisposition towards nervous and mental diseases it is very hard to recognize paresis in the first period. During the course of paresis in a number of cases remissions have occurred. Many cases have been known to improve after having a fracture, abscess, or some other intercurrent disease. It is difficult to mark a general average in the duration of paresis. The special form taken by the disease in any case has the greatest influence as to time required for the disease to run its course. The form in which the spinal cord is affected first is slow. If the brain and cord are affected at the same time the duration is short. Cases with expansive or exciting delusions proceed with greater rapidity than those of the depressed form. The average course of the disease is longer in women than in men; in those that have lived in comfort than in those who have lived poorly. It is also longer in cases that are hereditary than in those that are not hereditary.

As to the treatment of general paralysis none has been definitely outlined. As soon as a positive diagnosis is made the physician should at once explain the gravity of the prognosis to the family or friends, and advise the immediate removal to an institution where the patient can be under constant supervision. The family should be made to take the full responsibility of accidents that are apt to occur in the first stages of the disease. In the earlier stages of the disease the patient should always receive the advantages of anti-syphilitic treatment, but the results are very seldom gratifying. In the latter stages the symptoms are treated as they arise. Prolonged baths are often times beneficial.

New Orleans Medical and Surgical Journal, December, 1906.

A Few Remarks on Malarial Hematuria.—Dr. LeBlanc says that the profession splits on giving quinine in these cases. Some say never give quinine under any circumstances, as it increases hemorrhage; others say give it in large doses. If quinine actually causes the disease rather than to be its specific, as some go so far as to say, tell me why that since the physicians administer so much of the drug, and even the laity take it themselves in malarial districts, we see very little of this much dreaded malignant form of malaria? Fifteen to twenty years ago when quinine was not used extensively in malarial communities it was very prevalent. Those who oppose the administration of quinine give hyposulphite of soda, tr. ferri, peechlor, turpentine, and a score of other drugs. An older practitioner of this neighborhood who has been practicing for 25 years and has had a vast experience with malarial hematuria has always been a strong advocate of quinine and pursues the following treatment with marked success: First a large dose of calomel, grs. xv-xx, followed in 6 hours by a saline Epsom or Rochelle salt. Quinine, grs. v, every 4 hours, preferably hypodermically. Ergotin (Bonjean's) by same method every 4 hours. Turpentine m x 3 or 4 times daily for first few days if stomach will tolerate. In the author's experience he has used first the dose of calomel as mentioned above, followed in 6 hours by a saline. Quinine bisulphate, grs. xxx to xl per day by needle in two portions, say 4 to 5 hours apart. Ergotin also by hypodermic injection; in fact no medicine by the mouth except the purgative. Withdraw food for first forty-eight hours, except small quantities of milk and lime water. Iced water with bicarbonate of soda (teaspoonful to quart) for the early stage of the disease. Encourage copious draughts, this neutralizes the acid condition of the stomach and relieves congestion, thereby allaying vomiting. After 48 hours allow regular liquid diet. For the first 48 to 72 hours the stomach is very irritable and congested; in fact very much the same as in yellow fever, and will rebel against food and medicine. The author uses the calomel to relieve the congested liver and probably to eliminate toxins from the intestinal canal. Quinine acts directly on the parasites and their toxins in the blood, which when destroyed assists the disintegration of the blood and checks hemoglobinuria.

Maryland Medical Journal, Dec. 1906.

Review in Surgery.—Dr. A. McGlannan believes that early diagnosis is the most important point in the present treatment of malignant tumors. Most often this is best made by inspection of the tumor at exploratory incision. Today the surgeon must be familiar with the naked-eye appearance of tumors as exposed by incision. Frozen sections for the most part are no more definite than gross appearances, and the removal of a piece of tumor with postponement of the operation until hardened sections are made is never justifiable. In addition to this knowledge of the appearance of tumors the

surgeon must know the possibilities of cure in different varieties so as to determine the extent of operation justified. Extensive mutilating operations must not be performed for benign tumors nor for hopeless malignant ones. This point is of interest in the present day treatment of sarcoma, especially of the extremities. A few years ago amputation at the highest joint was the treatment advised for sarcoma of the extremities and many extensive operations were successfully performed. Studying the after results of these operations with regard to the type of the tumor present it has been found that in certain types of sarcoma death from intestinal metastasis occurred, no matter how extensive the operation, while other types were cured by relatively slight operations, often after repeated operation for local recurrence. Therefore, unless the limb is useless from fracture or deformity we no longer perform high operation for the cure of sarcoma. The relatively benign types can be cured by excision, resection, or even currettement, and in the case of a highly malignant tumor we do not afflict the patient with a mutilating operation in a vain attempt to cure a necessarily hopeless condition.

The Southern Clinic, December, 1906.

Zinc Oxide.—Dr. J. A. Burnett says that zinc oxide is an old remedy but a useful one in various conditions, both internally and externally. Diarrhoea can often be relieved by the internal use of zinc oxide. Dovers powder and bismuth subnitrate in most cases of remedies. The author knows a physician who uses a compound of zinc oxide, Dover's powder and bismuth subnitrate in most cases of diarrhoea with good results. He does not think it does much good to combine it with bismuth subnitrate as it will do about everything that bismuth will do, although Hare recommends it with bismuth subnitrate and pepsin in the summer diarrhoea of children or adults. Zinc oxide combined with belladona is often used with success in night sweats. Dr. H. C. Wood says "The oxide of zinc is used externally as a mild astringent, slightly stimulant and dessiccant application in skin diseases and to ulcers. When given continuously in small doses it is believed to act as a tonic and alterative upon the nervous system. It has also been commended as an astringent in chronic catarrhal diarrhoea of adults and infants and has been largely used in epilepsy and in chorea. The dose is 2-15 grains.

Virginia Medical Semi Monthly, Dec. 7, 1906.

Home and Office Treatment of Inebriety.—Dr. T. D. Crothers says that efforts to give temporary relief are noted by the following examples: A prominent lawyer who was to be a candidate in a coming convention applied to a physician for help to prevent him from drinking. He was given large doses of quassia for several days before the convention, with pills of atropia and strychnine at night. He passed through this period without the least impulse to drink, and later continued the treatment and permanently recovered. Another case was that of a half-crazed, trembling inebriate calling at the office of a physician and in a most pathetic way describing the impulses he had to kill his wife and child and commit suicide, thus ending the suffering. He had called on a number of physicians who had all turned him away in disgust, some giving him money, others morphia and spirits. The physician gave him a large dose of apomorphine, and after free vomiting gave him a bed in his stable. This was repeated during the day and night, and the next day he was able to go home. The physician continued the treatment and followed the case up regularly for several months until full recovery followed. These are by no means unusual or startling instances. The possibility of their occurrence is not unusual in the practice of every physician. At present thoughtless physicians give placebos, morphia, chloral and other narcotics to these office patients and not infrequently they are found dead a few hours later.

The time is not far distant when every medical man of the country will recognize the gravity of acute intoxication and treat such persons successfully. Where the treatment cannot be carried out at home hospitals and sanitariums will assist in removing the acuteness of the conditions and securing a degree of restoration which can be followed up by the family physician at home.

Virginia Medical Semi-Monthly, Dec. 21, 1906.

Some Remarks on the Treatment of Cancer.—Dr. J. S. Horsley believes that there are cases of superficial skin cancers that are cured by a paste after a prolonged painful and expensive treatment. Such patients are being continually congratulated by the cancer doctor that they have escaped all the perils and horrors of the knife; when as a matter of fact they could have been painlessly cured in one-fifth of the time and at one-fifth the expense by a simple cocaine operation. The cancer doctor proceeds with

great ceremony to apply a paste, dilating all the time upon what a fortunate escape the patient has made. At the end of several weeks the dirty slough has dropped off and healing has taken place. The cancer doctor has collected his $20 a week "for hospital expenses," but not satisfied with this he collects a fee for treatment in addition, usually anywhere from $100 to $1000. The consequences are that when efforts are made to dislodge these vampires such a patient appearing before a jury or a legislative committee will make a more profound impression with this statement of garbled truths than every physician in the State. And yet poor creatures with more dangerous cancers are daily enveighled into this treatment and lose their only hope of salvation while clinging to the last straw offered by the glib promises of the cancer doctor. Every few months I see cases that were originally simple cancers, but have undergone a paste treatment with such extension of the disease and lymphatic envolvement as to make operation exceedingly dangerous or not justifiable.

It seems to the author that it is as much the duty of the physician to educate his patients along this line as it is to cure them of other diseases. The highest form of medical science is the prevention of disease, and the time to prevent disaster to a cancer patient is when the disease is in its incipiency and before the cancer quack has fastened his fangs in his helpless victim.

Nashville Journal of Medicine and Surgery, December, 1906.

The Treatment of Typhoid Fever.—Dr. L. V. Yearwood believes that the intestinal antiseptic treatment has a large following. It is a beautiful theory, but he fears it is based on erroneous grounds. Osler says that "typhoid fever is no more primarily an intestinal disease than is smallpox primarily a cutaneous disease." He claims that the bacillus multiply in the intestinal walls, in the mesenteric glands, and in the spleen, and frequently are not found in the stools until the end of the second week, but granting that they should be found in the lumen of the intestine, the question arises have we a reliable intestinal antiseptic? Holt in speaking to this point says "experience has shown that those drugs that have been classified as intestinal antiseptics are of value, but as yet we must use them empirically." Among these drugs he mentioned bismuth, calomel, salol and salicylate of soda, and says the list might be much extended, but it seems to the author that Holt has derived little benefit from intestinal antiseptics, for taking as an illustration a disease in which there is no quibble as to the germs being found in the lumen of the intestine, take active gastro-enteric infection of which cholera infantum is the highest type. Under its prognosis Holt says it is exceedingly grave, that fully two-thirds of all the cases of genuine choleriform diarrhoea coming under my observation for the last two years have died."

Osler says "we are still without a reliable intestinal antiseptic, neither napthalin, resorcin, the salicylates nor mercury fulfill the indications." On the other hand W. F. Waugh and W. C. Abbott, of Chicago, claim that in the combined sulphocarbolates we have an ideal intestinal antiseptic. They claim that by their administration the baths are unnecessary and that the mortality is absolutely nil.

Book Notices.

Practical Dietetics with Reference to Diet in Disease. By Alida Frances Pattee, Graduate, Department of Household Arts, State Normal School, Farmingham, Mass.; Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; Former Instructor at Lakeside, St. Mary's, Trinity, and Wisconsin Training School for Nurses, Milwaukee, Wis.; St. Joseph's Hospital, Chicago, Ill., special lecturer at Bellevue, Mount Sinai, Hahnemann, and The Flower Hospital Training School for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fourth Edition. A. F. Pattee, Publisher, Mount Vernon, New York, 52 W. 39th St., New York.

There has been a very great demand for this book. It has only been a very short time since the third edition appeared, and now it is exhausted. This book has been adopted as the text-book in many Hospitals and Institutions; also the United States Army has adopted it as authority on dietetics. It has been adopted as a text-book for the training schools in New York, and the military authorities in Canada have adopted it as a text-book. It contains 315 pages, and is very nicely indexed, and is arranged in such a way that it is very practical.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G. Betton Massey, M. D., Attending Surgeon to the American Oncologic Hospital, Philadelphia; Fellow and ex-President of the American Electro-Therapeutic Association, etc., etc. Fifth, Carefully Revised Edition. Illus-

trated with Twelve (12) Original Full-page Chromo-lithographic Plates of Drawings and Paintings, Fifteen (15) Full-page Half-tone Plates of Photographs made from Nature, and 157 Half-tone and Photo-engravings in the text. Complete in one Royal Octavo Volume of 467 pages. Extra Cloth, Beveled Edges. Price, $4.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

The fact that a fifth edition of this work was demanded within a year of the appearance of the fourth edition must be accepted as evidence of an increasing prevalence of conservatism in gynecology. For this broadening of therapeutic effort the medical profession itself, and womanhood, especially, should be thankful. We feel confident it will serve as a permanent inspiration to greater breadth of view in a specialty still in its formative stage. The author in revising the text for this edition, embraced the opportunity of bringing the technical consideration of the constant current derived from the street mains up to date. He considers fully and elaborately the chapter on the cataphoric treatment of cancers. Those who are interested in electro-therapeutics could not do better than add this book to their library. It is well written and its illustrations are beautiful.

International Clinics. A Quarterly of Illustrated Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M. D., Oxford, John H. Musser, M. D., Philadelphia, J. B. Murphy, M. D., Chicago, A. McPhredan, M. D., Toronto, Thos. M. Rotch, M. D., Boston, John G. Clark, M. D., Philadelphia, James J. Walsh, M. D., New York, J. W. Ballantyne, M. D., Edinburgh, John Harold, M. D., London, Edmund Landolt, M. D., Paris, Richard Kretz, M. D., Vienna. With regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic and Brussels. J. P. Lippincott Company.

This is the largest volume of any of the International Clinics. It contains about 350 pages. Its illustrations which are numerous are beautiful. The most of them are of electrical apparatus. The chapter on electro-therapeutics is written by John H. W. Rhein, M. D. It is possibly the most important chapter in the book. He goes into the subject in a very thorough way. This article alone is worth the price of the book. The chapter on "The Principles of Treatment of Fractures of the Lower Extremity," by Dr. George G. Ross, of Philadelphia, is also of very great value, and an article or chapter of no less value is one entitled, "Suggestions in the Treatment of Hip-Joint Disease," by Dr. Russell A. Hibbs, of New York. This chapter is very well illustrated and will aid the reader in appreciating the text. These quarterly volumes issued by the Lippincott Company are invaluable to the physician.

A Practical Treatise on Materia Medica and Therapeutics, with especial reference to the Clinical Application of Drugs. By John V. Shoemaker, M. D., LL.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association and the British Medical Association; Fellow of the Medical Society of London, etc., etc. Sixth Edition. Thoroughly Revised. (In conformity with latest Revised U. S. Pharmacopoeia, 1905). Royal Octavo, 1244 pages. Extra Cloth. Price, $5.00 net. Full Sheep. Price, $6.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The coincidence afforded by the exhaustion of a very large edition of this work, and the publication of a new revision of the United States Pharmacopoeia, has afforded Doctor Shoemaker an opportunity of making many additions to the text of his book, which he believes will make it fully representative of the present state of therapeutics. The numerous pharmacopoeial alterations in nomenclature, and in the strength of official preparations, and also the many new titles which have been added, have necessitated a thorough revision of every page, particularly in order to make the second part correspond with the present standards, both of the United States Pharmacopoeia and the British Pharmacopoeia. Among the notable changes from the last edition are the following: Part I is entirely added, having been taken from the limited Student's Edition, thoroughly revised, and completed by adding a comparative table, giving the changes in the strength of preparations and relative dosage in the present Pharmacopoeia and the one which preceded it. Among the new therapeutic agents will be observed a consideration of the Roentgen-Ray and the Finsen Light, Serumtherapy, Animal Extracts, Vibrotherapy, Hydro-

therapy, etc. Every part has been carefully revised, and, when possible, condensed, so that, notwithstanding the large addition of new material, the work has been really increased by only about one hundred pages. The features of the work which have met with approval by many readers have been retained. In preparing the present edition Doctor Shoemaker has kept in view, as heretofore, the needs of the medical student, as well as the physician, and the Reviewer feels confident that it will be found no less useful to those who consult it than the former editions which it supersedes.

The book is written in a very attractive style, which is always characteristic of Doctor Shoemaker's writing.

Syllabus of Lectures on Human Embryology: an introduction to the study of Obstetrics and Gynæcology for Medical Students and Practitioners; with a Glossary of Embryological Terms. By Walter Porter Manton, M. D., Professor of Clinical Gynæcology and Professor Adjunct of Obstetrics in the Detroit College of Medicine; Fellow of the Zoological Society of London, of the Michigan Academy of Sciences, etc., etc. Third Edition. Revised and Enlarged. Illustrated with a colored frontispiece and numerous outline drawings. 12mo, 136 Pages; Interleaved throughout for adding notes. Bound in Extra Cloth. Price, $1.25 net. F. A. Davis Company, 1914-16 Cherry Street, Philadelphia, Pa.

While this book is especially designed for, and will be found particularly useful to students in their first and second years at college and is likewise a desirable manual for review and reference for the general practitioner, it is not intended to take the place of the exhaustive text-books on Embryology, but is primarily for use in the class-room supplementary to the lecture and for laboratory guidance. It can also be used for self-instruction and in laboratory work in connection with the usual text-books.

The Reviewer believes a book of this kind will be invaluable to the student and those who want to become well informed on this subject, and it will be of especial value to those who want to review the subject quickly.

Transactions of the American Surgical Association. Volume the twenty-fourth. Edited by Richard H. Harte, M. D., Recorder of the Association. Printed for the Association. For sale by William J. Dornan, Philadelphia. 1906.

This is indeed a very valuable book. Its illustrations are magnificent and numerous. Many of the papers are by men who are internationally known as surgeons.

It contains about 600 pages and is bound in its uniform style.

Doctor D. P. Allen is President, and Doctor Richard H. Harte is Recorder. Doctor Harte edited the volume and it shows that he gave it a great deal of time.

The Mystery of the Shadow. By Fergus Hume. Authorized edition with sixteen illustrations by A. T. Smith. B. W. Dodge & Co.

One is sure to find crime, mystery, detection and other similar qualities in a novel written by Eugene Hume. This book, "The Mystery of the Shadow," is no exception to the rule. The strangling of a nice, old lady who has married a young fortune hunter is the murder mystery which is to be solved. There are twin brothers, ghost stories, etc., and 15 full page illustrations, which are very attractively gotten up.

Socialism. A Summary and Interpretation of Socialist Principles. By John Spargo. New York: The Macmillan Company. London: Macmillan & Company.

The object of this book is to state in popular language what Socialism really means and what it does not mean. It is intended to be an introduction merely to a great and profoundly impressive subject of growing international interest and importance. During many years spent in the building up of Socialism the need of such a volume has been deeply impressed upon the mind of the writer. Hence this attempt to meet the necessity. Some of the chapter titles are: Robt. Owen and the Utopian Spirit; The Materialistic Conception of History; Capitalism and the Law of Concentration; The Class Struggle; Outlines of Socialism. Those who are interested in this line of thought, which daily seems to be growing throughout the country, will get a great deal of information by reading this book. It contains about 275 pages.

The Vine of Sibmah. A Relation of the Puritans. By Andrew McPhail. Illustrated. New York: The Macmillan Company.

The reign of Charles the second is the period during which this romance occurred. The hero, former Captain of Cromwell's Army, tells the story. The scenes, which are at first laid in Old England, are changed to the New England colonies, and Puritan life in both countries is portrayed by the author of Essays in Puritanism. The pursuit of Beatrix by the hero furnishes a love plot to the novel.

Merrylips. By Beulah Marie Dix. With

illustrations by Frank T. Merrill. New York: The Macmillan Company.

This is a story of a little girl who was compelled to masquerade as a boy and take his part in the battles. Her exciting adventures make a very interesting story for young readers.

The Czar's Gift. By William Ordway Partridge. Illustrated by Victor Parard. Funk & Wagnalls Company, New York and London.

An addition to the "Hour Glass" series. Here is told the story of a Polish boy who carved a statue of the Czar's dead daughter so skilfully as to win the freedom of his brother from Siberia. The little book is illustrated by line drawings by Victor Perard.

Edgar Allan Poe. The Man; The Master; The Martyr. By Oliver Leigh. Portraits. Chicago: The Frank M. Morris Company.

This small book discusses the character portraits of Poe. The frontispiece is a transposable portrait of the subject. There is also, The Wedding Year Portrait, The Profile Study, The Widower Year Protrait, and His Monument. There are notes on the portraits of Poe and on the faces, chapters which deal with the "Lavante" Sâtire; Poe's biographers, censors and champions, the sketch and rhymes on his monument, etc.

Two-Legs. By Carl Ewald. Translated from the Danish by Alexander Teixeira de Mattos. Charles Scribner's Sons, New York.

This parable, which Alexander Teixeira de Mattos has translated from the Danish, tells the fanciful story of the various stages of man's conquest of the animal kingdom and of his translation from a state of savagery to civilization.

The Rose Croix. By David Tod Gilliam, M. D. Illustrated by Ted Ireland. The Saalfield Publishing Company, New York, Akron, Ohio. Chicago.

This mystical and mythical tale is written especially for Masons. The scenes are laid in several parts of the world and deal with the war between Texas and Mexico. Its illustrations are beautiful. The book is well written. It contains about 400 pages.

The Distractions of Martha. By Marion Harland. Illustrated by R. Emmett Owen. New York: Charles Scribner's Sons.

As Martha, the heroine of this novel, begins her married life, she follows closely a set of theoretical rules gathered from various so-called authentic sources. These rules do not prove practical at all times, and while Martha scores a few triumphs, her failures predominate, until she discards new-fangled notions and takes pattern after her ancestors. The illustrations by Owen are very beautiful.

The Perfect Tribute. By Mary Raymond Shipman Andrews. New York: Charles Scribner's Sons.

This is a little book of appreciation of Abraham Lincoln, interwoven with a pathetic little story.

Bookbinding For Libraries. By John Cotton Dana. Library Buerau, Chicago.

These notes have been compiled in the hope that they may be of assistance to librarians in caring for the binding and rebinding of library books.

Peterson's Obstetrics. The Practice of Obstetrics. By Eminent Authorities. Edited by Reuben Peterson, A. B., M. D., Professor of Obstetrics and Diseases of Women in the University of Michigan, Department of Medicine and Surgery, Ann Arbor, Mich. Large octavo, about 1087 pages, with 523 engravings and 30 full-page plates in colors and monochrome. Cloth, $6.00 net; leather, $7.00 net; half morocco, $8.00 net. Lea Brothers & Co., Philadelphia and New York, 1907.

With the volume edited by Prof. Reuben Peterson, The Practitioner's Library of Gynecology, Obstetrics and Pediatrics is completed. It is fully up to the high standard set by its companions, the Gynecology, edited by Bovee, and the Pediatrics, by Carr. The profession now has at command in convenient form an authoritative exposition of the latest and best knowledge upon three closely interrelated and important specialties. The basic subjects of applied pathology and etiology are considered with sufficient fullness to lay the foundation necessary for a fruitful understanding of the practical aspects, to which major space is devoted. Each author has woven in his own observations of disease and the therapeutic measures which have resulted in the greatest success. This adds to each chapter a personal element of obvious value. In view of their particular importance in Obstetrics, the series of illustrations has been made exceptionally rich, and it is likewise notable for being largely from original photographs taken from life. The facilities at Dr. Peterson's command have rendered it possible to an unusual degree to make selections specifically representing points in the text. Though it is to the interest of every practitioner to have this well-rounded and compact Library at hand, the volumes are sold either together or separately.

Whitman's Othopedic Surgery. A Treatise on Orthopedic Surgery. By Royal Whitman, M. D., Instructor in Orthopedic Surgery in the College of Physicians and Surgeons, New York; Chief of Orthopedic Department in Vanderbilt Clinic, New York. Third edition, revised and enlarged. Octavo, 900 pages, with 554 illustrations, mostly original. Cloth, $5.50 net. Lea Brothers & Co., Philadelphia and New York, 1907.

Orthopedic Surgery has hitherto been commonly considered as the most technical of specialties, and as being limited to the hands of the few who could devise and understand the cumbrous apparatus identified with the name. Modern methods have brought a new dispensation to the numerous and universally distributed class of sufferers from mechanical defects in their own bodies. Chief among these advances is the fact that much of this suffering is preventable, and as much curable by attention early in life, when structures are plastic and treatment is both easier and more efficacious. Hence the family physician has become the most important of all orthopedists, for it is he who has the first opportunity, and who is thereby under the highest obligation, to detect, prevent or cure such defects, or to recognize when they must be referred to a specialist. Dr. Whitman's book presents orthopedic surgery exactly along these modern lines, and the demand for successive large editions shows appreciation of its value by the general practitioner as well as the surgeon and specialist. The author has improved the opportunity again presented by the popularity of this standard book by thoroughly revising it to the latest date and incorporating new material and many new illustrations.

Starr on Nervous Diseases. Organic and Functional Nervous Diseases. By M. Allen Starr, M. D., Ph.D., LL.D., Professor of Neurology in the College of Physicians and Surgeons, New York; ex-President of the American Neurological Association and of the New York Neurological Society. Second edition, thoroughly revised. Octavo, 824 pages, with 282 engravings and 26 full-page plates. Cloth, $6.00 net; leather, $7.00 net. Lea Brothers & Co., Philadelphia and New York, 1907.

The author's position in the forefront of neurologists has been shown anew in the rapid exhaustion of the first edition of his work, limited though it was to organic nervous diseases. An even warmer reception is assured for this revision, which brings the organic portion to date and adds a section covering the functional diseases, so that the volume now presents the whole field of neurology as understood and practiced by a master. The author is the reverse of abstruse or nihilistic. On the contrary, he is straightforward and direct, and justifies his optimism as to the advanced position of neurological diagnosis and treatment by the wealth of information placed at command of his readers. Paying due regard to theory, he devotes especially full attention to etiology, diagnosis and treatment, both medical and surgical. The book is largely based on the solid foundation of long experience, but it also embodies the well-attested knowledge of other authorities as gleaned from a thorough sifting of the vast literature of neurology. Practical, authoritative, covering the whole subject in all its aspects, and abundantly illustrated, this new edition of Prof. Starr's work answers the needs of students, practitioners and specialists.

Transactions of the Indiana State Medical Association. Fifty-seventh Annual Session held at Winona Lake, Indiana, Wednesday, Thursday and Friday, May 23, 24 and 25, 1906.

We are always glad to receive the transactions of the Indiana State Medical Association. This volume of the fifty-seventh Annual Session is indeed a very valuable one. It contains many papers by men well known throughout the medical profession.

It contains 586 pages and is nicely bound and indexed. Doctor G. H. Grant, of Richmond, Indiana, is President, and Doctor F. C. Heath, of Indianapolis, is Secretary.

The Secretary has done his work well in getting up this volume.

The Railroad Crisis.

Tho argument for government ownership of railroads in the United States has usually been based upon the view that these highways of commerce are of public necessity and should be placed under public control to insure to the citizens an equality of advantage in their use. The principal argument against such governmental ownership has been the superior practical efficiency of private direction and management. But unless conditions notoriously prevalent just now should soon be changed for the better, the public-ownership advocates will become confident and aggressive along a wholly new line of advance, where they have heretofore been on the defensive. They will point to the complete breaking down of efficiency in the actual business of transportation in this country, and will begin to claim that the Government could not possibly do things so badly and would in all

probability manage the roads with a far higher degree of business efficiency. Furthermore, they will point to the inability of the great railroad managers to obtain the money they need to make absolutely necessary improvements, whereas the Government of the United States could obtain almost unlimited capital at half the rate of interest the railroads would be obliged to pay. It does not follow that these new arguments will be conclusive. There is no evidence as yet to show that the people of the United States, just exasperated with the railroad managers as they have become, are by any means prepared to throw the burden of railroad ownership and administration upon the United States Government. On the other hand, they will heartily support the Government in its present policy of investigating abuses and trying to compel those responsible for present conditions to apply practical remedies.—From "The Progress of the World," in the American Monthly Review of Reviews for February.

Timeliness of interest, aside from any other condition, lends especial importance to the announcement of the early publication of Foods and Their Adulterations, by Harvey W. Wiley, M. D., to be immediately followed by a companion volume, Beverages and Their Adulterations. Dr. Wiley is Chief Chemist to the United States Department of Agriculture, at Washington, and his wide researches in the interests of purity in food commodities give anything he might write on the subject an authoritativeness that is unquestioned. The fact that the new National Food and Drugs Law becomes effective after January 1st, and that public interest in it is now at white heat, will no doubt result in quite a demand for both volumes. The books will be generously illustrated from original photographs and drawings.

W. B. Saunders Company, of Philadelphia and London, have just issued a revision of their handsome illustrated catalogue of medical, surgical, and scientific publications. Beyond question this is the most elaborate and useful catalogue we have ever seen. The descriptions of the books are so full, the specimen illustrations are so representative of the pictorial feature of the books from which they are taken, and the mechanical get-up so entirely in keeping with the high order of the context. The authors listed are all men of recognized eminence in every branch and specialty of medical science. The catalogue is well worth having, and we understand a copy will be sent free upon request.

The February Everybody's makes a wide appeal to Americans—to every one, in fact, who is "awake." There is a remarkable group of six special articles, and for entertainment seven fiction contributions of the highest order of excellence. In addition, there are special drawings, poems, and the usual departments of book reviewing, humor, and publishers' "straight talk."

"Our Industrial Juggernaut," by Arthur B. Reeve, is an astonishing exposition of the yearly sacrifice of life in America to the twin gods of speed and greed. "Dollars vs. Pedigree," by George Barr Baker, is a sane discussion of international marriages, particularly of the sort which have recently gained notoriety. "Shall We Give Tips?" by Theodore Waters, is a powerful arraignment of the growth of the tipping evil in America. William Morton Fullerton, Paris correspondent of the London Times, writes an illuminating account of Georges Clemenceau, Prime Minister of France, and the problems which confront him.

"The Autobiography of a Business Man" is a well-known and successful Chicago merchant's account of the ways and means to his success.

W. J. Henderson, the well-known critic, writes of the opera. The fiction of the number is by such well-known writers as Will Irwin, editor of McClure's; Jack London, Thomas W. Lawson, Mary Heaton Vorse, Richard Henry Little, and several others.

The Centenary of General Lee.

In commemoration of the one hundredth anniversary of the birth of Robert E. Lee, January 19, 1807, a hitherto unpublished portrait of him is reproduced on the cover of Lippincott's Magazine for the current month. The original painting was made in 1865, by J. W. King, an artist who served in the Confederate army. General Lee himself, and the officers of his staff, considered this to be the best likeness of him ever produced. "Memories of Robert E. Lee," a paper by Mrs. General Pickett, which accompanies the picture, is intimately anecdotic and extremely interesting because of the fresh light it throws upon the character of this great man.

Woman. A Treatise on the Normal and Pathological Emotion of Feminine Love. By Bernard S. Talmey, M. D. Written for and sold exclusively to physicians and students of medicine. The Stanley Press Corporation, Publishers, New York.

This work deserves the notice of the medical profession, because so far as we know it is the only concise scientific work treating on this important subject in existence. The pathology of the female sexual functions from a psychical point of view is

a subject upon which the practitioner is generally ignorant. Text-books and gynecology teachers give the student no information, in fact the subject of "Femine Love" is tabooed and shunned on every side.

Dr. Talmey's work is complete in its scope, yet concise in expression—just the book for the busy doctor. The book gives evidence of the enormous amount of research on the part of its author, together with his own personal observations during his career as a gynaecologist.

Abstracts of the Leading articles of the month.

Abstract.

Serum Treatment in Non-bacterial Disease.—Dr. Norton R. Hotchkiss, in the Yale Medical Journal, draws attention to the serum therapy of disease in general, but particularly to this method of treating non-bacterial disease. He deals more specifically with its application to thyroidism. Quoting liberally from the work of Rogers and Beelbe, he says that the serum employed is obtained from sheep or rabbits which have been inoculated with the extract from human thyroids. By a special process of treatment of the gland, which is obtained from a subject shortly after death, the substance left by the extraction contains nucleoproteids and thyro-globulin. According as a normal or pathological gland is used in the inoculation of the animals there are obtained:

(1) Normal serum, by which is meant an antitoxin or antithyroidal serum obtained by inoculating these animals with the combined nucleo-proteids and thyro-globulins separated from the normal human gland.

(2) The pathologic serum, obtained by inoculating the animal with the combined nucleo-proteids and thyro-globulin of the pathologic thyroids.

The author says: "The serum thus obtained presumably contains an antibody or cytotoxin which is specific in its action on the thyroidal epithelium and an antitoxin for the thyro-globulin which is believed to be the toxic product of the diseased gland." He believes the normal serum is less active than the pathologic serum, but that a patient once improved by the pathologic serum can be kept in check from exacerbations of thyroidism by the normal serum. The exact dosage has not yet been determined. According to the writer "Some very distressing symptoms occasionally follow immediately upon the injection, such as faintness, cyanosis, very rapid and feeble pulse, high temperature, nausea, vomiting and diarrhoea—in fact, seeming to increase the condition of thyroidism. These symptoms are, however, usually only transitory, lasting usually about a day. As a rule, the injection is followed within a few hours by considerable local swelling and erythema near site of inoculation, and which continues for several days. This oedema has sometimes been more pronounced with the pathologic serum than with the normal serum, but with less pain with the pathologic serum. Usually about 12 hours after the injection there is generally some fever and increase in the tachycardia or irregular heart action and often diarrhoea for a day or two. A second injection during this time intensifies these symptoms. Menstruation seems to intensify the results of the injection and consequently the injection should not be given until after the menstruation has ceased."

"After the reaction has passed, especially from the pathologic serum, there is usually some improvement in the subjective spmptoms of the thyroidism, improvement in the restlessness, in insomnia, thumping of the heart subsiding, pulse growing slower and stronger."

"Best results usually follow 4—8 injections of 1 c. c. every third or fourth day, but waiting until previous reaction has subsided. Too frequent and too long continued injections serve to do harm rather than good, causing muscular weakness and prostration."

"The more acute and toxic the case of Graves disease the better effect seems to follow the injection. It has usually required about six months of treatment and observation before all signs of over-activity of the thyroid have disappeared."

He cites at least two cases of his own in which good results followed this treatment. Statistics given by Rogers are as follows: Of 90 cases under treatment, 23 have been cured of all symptoms of thyroidism, 52 more or less improved, 11 still in doubt, and 4 fatalities.

Primary Sarcoma of the Stomach.—M'Cormick and Welsh (Scottish Medical and Surgical Journal) report two instances of primary sarcoma of the stomach—both successfully operated on, both over fifty years of age.

A third case is appended, occurring in a man forty years old, the diagnosis having been made post mortem. Authorities are quoted to the effect that more cases of primary gastric sarcoma are reported over seventy than under ten years of age, and there are just as many between the fiftieth and seventieth as between ten and thirty, the maximum incidence falling between

the fortieth and fiftieth year. They state that the perfunctory classification of malignant growths as sarcomata when they arise in the young, and as cancers when they arise in later life, is a convention much to be deprecated.

The round-cell forms frequently spread in the pyloric half of the stomach, and frequently manifest themselves as diffuse infiltrations of the stomach wall. There is usually no stenosis of the pylorus, the orifice being kept open by the rigidity of the walls, but the cardiac end is often dilated. The bulk of the growth is encountered in submucous tissue. This form of growth rarely gives rise to a globular tumor projecting from the stomach wall. The general symptoms are like those of carcinoma in the same region, and the chemism is modified in the same way. The disease is fairly rapid in its course and there is a tendency to glandular infection.

Spindle-cell sarcomas generally spring from the body of the stomach near the greater curvature, and often from its posterior wall. They take the form of localized growths which project from the outer surface of the stomach. As they increase in size they frequently become pedunculated. They form adhesions with adjacent structures. These forms display a relatively limited malignancy, though secondary growths have been recorded, particularly in the liver. Stomach symptoms are characteristically absent in the early stages. Even later when a firm, rounded, freely movable tumor can be felt there may be nothing in the clinical history to attract attention to the stomach. The majority of successful operations have been accomplished in regard to the growths of the spindle-cell group.

Blackwater Fever Due to Administration of Quinine.—Ketchen (South African Medical Record) has reported the following important case, which appears to be conclusive. An Austrian, aged twenty-eight years, was admitted into the New Somerset Hospital, Cape Town, on April 17, 1906. He gave the following history: In March, 1903, he was first attacked with malaria when in East Africa. Under Koch's treatment (one gramme of quinine every ninth and tenth day) the symptoms disappeared in two months. In November, under the influence of fatigue and privation, the fever recurred. One morning when his temperature was rising he took quinine, and after half an hour he passed very dark urine. Under diluent drinks the urine became clear in twenty hours. When the temperature had been normal for two or three days he again took quinine, and the black water recurred. Afterward he had short malarial attacks, but did not take quinine. Then a severe attack, in which the temperature rose to 106.7 degrees F., occurred. When he recovered his medical adviser told him to take quinine again, beginning with a small dose and gradually increasing. On taking about one-tenth of a half-gramme tablet (about three-quarters of a grain) black water occurred in half an hour. Later he took one-fortieth of a tablet, with the same result. For the fourteen months preceding admission he had had no more malarial attacks, but he suffered from dysentery.

On admission he was somewhat spare and anemic. The spleen extended four inches below the ribs. There was slight dilatation of the heart, and the first sound terminated in a soft systolic murmur. The liver was slightly enlarged. The urine did not contain albumin or blood. The temperature was normal. He was kept in bed, given iron and arsenic, and dieted for the colitis. On the 20th a blood-film showed one or two parasites of the estivo-autumnal type. On April 23, at 8 a. m., by mistake he was given 10 grains of ferri et quininæ citras (containing about one and one-half grains of quinine). At 10 a. m. he noticed that the urine was black, and concluded that he had taken quinine. At 6 p. m. the temperature was 102 degrees. Ignorant of the facts the house physician prescribed 10 grains of quinine, which was given at 11 p. m. At 10 p. m. the urine was clear and the temperature had fallen to 99.4 degrees. At 2 a. m. on the 24th the temperature was 104.2 degrees, he had a rigor lasting twenty minutes, and vomited. When seen in the morning the skin was of a saffron color and the conjunctivæ were yellow. He had been sweating profusely. The urine was black and contained albumin and casts. The temperature rapidly fell and on the 25th was normal, when the yellow color had almost disappeared and the urine was clear and contained a trace of albumin. On the 26th six grains of quinine were given at 6 p. m., and at 10 p. m. the temperature had risen to 102 degrees, and he was again passing black water with the same symptoms as before. Under a liberal diet, iron, and arsenic he rapidly improved. As doubt was expressed that so small a quantity of quinine as that contained in ten grains of ferri et quininæ citras could cause an attack this dose was given at 8 a. m. on May 8th. At 10 a. m. he was passing red urine, and at 6 p. m. the temperature was 104.2 degrees. The blood showed no parasites. On the 14th he left the hospital much improved in general condition, but without diminution in the size of the spleen.

The Rhinitides of Nursing Infants.—Torday (Johrbuch fur Kinderhk.) says that

rhinitis in the newborn may be a primary disease due to infection by vaginal secretions, exposure to draft, or entrance of water in the nostrils at the time of the first bath; or secondary to a constitutional disease. In the young infant coryza markedly interferes with respiration and nursing, and may lead to complications such as bronchopneumonia and otitis media. Gonorrhoeal rhinitis is usually preceded by gonorrhoeal ophthalmia. It makes its appearance earlier than a luetic rhinitis, which does not come on for several days after birth. The discharge in the latter is tenacious and bloody. Three forms of diphtheritic rhinitis are described by Zarniko, namely: catarrhal, membranous, and diphtheritic proper. The latter is always accompanied by pharyngeal diphtheria, and is usually the most severe type of the disease. The treatment varies according to the cause. In simple rhinitis the author uses tampons moistened with tonogen every three to four hours, for a few minutes at a time. Vohsen advises the blowing out of the nose by means of a tube previous to the use of adrenalin. In gonorrhoeal rhinitis Torday advises the use of 1 per cent. sodium bicarbonate or 2 per cent. boric acid solution. The author reports 6 fatal cases of rhinitis occurring during the course of several epidemics at the Budapest Kinderasyl. Most of the cases showed pure cultures of streptococci. One case developed a streptococcus peritonitis and two cases a complicating bronchopneumonia.

The Etiology and Prevention of Cancer. —Kelling (Archiv. fur klinische Chirurgie) gives results which if confirmed will have a very important bearing on the transmission of cancer.

He says that cancer cells are embryonal cells of animals of other species ingested with food. The writer found in the serum of cancerous individuals an albumen differing from the usual albumens of the blood, and he decided that this body was a precipitin or similar substance developed by the presence of foreign cells in the organism. After a series of experiments with blood and tissues of the animals most commonly used for food, he found that each cancerous individual showed a specific reaction toward one sort of animal but not toward others.

The author's experiments may be summarized as follows: Functional precipitation of the juice of cancer gives an albumen differing from all albumens occurring in the human body. This albumen also occurs in the blood of cancerous individuals, and gives a precipitin reaction and a hemolytic reaction with albumen and blood of other species.

Blood was drawn from a cancerous patient and allowed to coagulate and the clear serum used. Blood was drawn from healthy chickens, cows, pigs, and sheep, defibrinated, centrifugated, and the corpuscles washed several times in normal salt solution. A definite amount of serum was then added to the corpuscles of each species, which were well shaken up and divided into small test-tubes. To each suspension two drops of serum from the cancer patient was added, and the glasses were kept at 99 degrees. They were examined at intervals and then shaken up. For control four glasses were treated with normal human serum. In each case it was found that one of the animals showed much more marked hemolysis with the serum of the cancer patient than any of the others, while all were about equally affected by normal human serum. If the tubes are centrifugated and the discolored serum poured off and the tube filled with distilled water, which dissolves the corpuscles, and the darker specimen diluted until both are of the same shade, the proportion of hemoglobin dissolved can easily be calculated.

That the test be considered positive it is necessary that the selected animals be healthy, that the corpuscles be thoroughly washed, and that the blood be fresh.

If the serum of the patient dissolves 50 per cent. more of a particular sort of hemoglobin than does normal serum, the diagnosis of malignant tumor is certain; if 30 per cent. more, only probable.

In certain cases of feeding with large numbers of raw eggs, the serum may show marked hemolytic action toward chicken blood. This only occurs when there is deficient acid in the gastric juice. In various diseases the hemolytic power of the serum may be increased, but not toward one animal only. Cachectic patients may not show strong hemolytic power in spite of evident cancer.

The blood of a cancer patient which reacts positively toward a certain specific blood will always react toward the blood of the same species, and the serum which causes a precipitate in blood of a given species will dissolve the corpuscles of that species. In some cases no positive reaction could be obtained; it is probable that the cancer in such arose from cells of some other species than the four tested—*e.g.*, fish or crab. If after operation the reaction disappears the cancer is entirely removed, but if it reappears shortly the cancer is recurring and specific reaction is always toward the same species as before.

Prognosis may be based on the character of the reaction. Swine tumors are most benign. Sheep tumors tend to produce anemia. Chicken tumors are most malignant. No cases of reaction to cow's blood

were found, probably because pregnant cows are not often slaughtered. The prognosis is better the stronger the reaction. The morphological character and seat of the tumor bear no relation to the source.

The author says that 50 per cent. of all tumors can be diagnosticated by this reaction before other signs are positive. Tumor juice injected into a species different from that to which it is specific causes a specific reaction in the injected individual. The reaction does not occur with the corpuscles of the species in which the tumor is found, which is against Cohnheim's theory. In some cases the reaction was stronger with blood from embryos of the specific animal.

The reaction may not occur when cancer is present, if the individual is very anemic or cachectic, if the cancer cells are derived from an animal other than those tested with, or if the tumor is pedunculated so that very little of its albumen escapes into the circulation.

For details as to collecting the blood and the exact method of experimenting and avoiding errors, the reader is referred to the original paper.

Notes on Some Anaesthetic Methods.—McGowan (Australasian Medical Gazette) says that atropine and scopolamine have much the same characteristics, and his observations on "mixed" anaesthesia with morphine and atropine, followed by chloroform or ether, will apply equally to morphine and scopolamine followed by a general anaesthetic:

(1) The small amount of chloroform used is no criterion of safety. How often have we not heard of deaths when only a few drops were exhibited to the patient? (2) With this mixed anaesthesia the eye reflexes, and in particular the pupilary reflexes, are utterly unreliable. (3) One has difficulty therefore in judging the depth of the anaesthesia, and in saying how much is due to morphine and how much to chloroform. (4) In consequence the patient often most inconveniently emerges suddenly from an apparently deep anaesthesia, and presents active clonic or tonic movements of which one has no warning. (5) If respiration ceases under chloroform in such cases, much more difficulty is experienced in causing the respiratory center to respond to stimulus than if the center had not been previously dulled by morphine. (6) The narcotics fix the chloroform in the blood for too long a period after the operation is over by their action in checking excretory functions. Prolonged postanaesthetic coma and vomiting are thus often noticed. These are disadvantages experienced personally by the author in the use of such mixed anaesthesia, though of course he is not adversely criticising the morphine and scopolamine or morphine and atropine followed by a general anaesthetic as routine practice.

In one class of operations—that is, on the rectum—the mixed anaesthesia gives excellent results. One-fourth grain of morphine and 1-200 grain of atropine half an hour before ether anaesthesia quite averts the alarming laryngeal spasm and general shock from dilating the sphincter ani, so often seen under chloroform.

Infantile Scurvy.—Still (British Medical Journal) says that an infant who has been fed upon one of the patent foods, with or without milk, or milk which has been condensed, sterilized, or otherwise altered, has been ailing for some weeks, has taken food badly, and probably lost weight, is a picture, striking enough of this disease. The mother says it cries whenever it is touched, and, as she puts it, "has lost the use of its limbs." There may be some swelling of one or other of the limbs. Any handling of the affected limbs causes a piteous cry, evidently of acute pain. If teeth are present the gums around them are swollen and purple, bleeding readily when touched. The urine is perhaps smoky, if not red with blood. Age is important in diagnosis. In three-fourths of the cases the disease begins between the age of six months and ten months. Rheumatism is practically unknown under eighteen months and is rare under three years. Syphilitic epiphysitis begins most often under the age of three months.

Onset may be insidious; the child is fretful and miserable, takes nourishment badly, fails to gain or loses weight. There is no swelling of limbs, no definite tenderness, and the gums are perfectly normal, but the condition improves rapidly on anti-scorbutic treatment.

The more pronounced symptoms may, however, appear suddenly. Perhaps the most striking symptom is the tenderness of the limbs and loss of movement. This occurs much more frequently in the lower limbs than in the upper. With the tenderness there is sometimes associated some visible or palpable swelling of the affected limb. This is the result chiefly of subperiostaal hemorrhage and may aid in the diagnosis in infants who have no teeth. Loss of movement is often very marked. Edema of skin over swelling occasionally occurs and does not indicate pus. Great swelling and discoloration of the gums is by no means a constant feature. A slight discoloration may occur only on edge of gum behind the tooth. Hemorrhage into the gum does occur before the tooth pricks

through, when it is close to the surface. Palatal hemorrhage may aid in the diagnosis in infants who have no teeth and show no gum affection. Orbital hemorrhage is not frequent. Urinary changes are more constant than the gum affection; 88 per cent. showed some change and 60 per cent. showed hematuria. Pyrexia, though exceptional, is not rare. Hemorrhages into the skin, from mucous membranes, or into the viscera, are exceptional. Three out of 54 cases proved fatal from diarrhoea or exhaustion. There is sometimes prolonged disturbance of nutrition. Usually antiscorbutic diet will cause definite improvement within four days.

Scurvy is an entirely preventable disease. The diet in this series of 54 cases was: patent food with water, 14 cases; patent food with fresh milk, usually boiled, 18 cases; patent food with condensed milk, 11 cases, and with sterilized milk, 1 case. Condensed milk caused 5 cases, sterilized milk 3 cases, and peptonized and boiled milk each 1 case. Scurvy in these cases was not due to boiling the milk, but to the addition of the patent food. Milk heated to boiling for a few seconds has little tendency to produce scurvy.

Human and Bovine Tuberculosis. The Danger of Infected Milk.—Raw (British Medical Journal) says that human and bovine tubercle bacilli are divisible into two distinct types of a common species. Long-continued residence in a particular host has resulted in the bacilli assuming distinguishing characteristics. They produce different and characteristic lesions in the human body, and they show distinctive cultural differences when grown in the same medium.

The writer believes that human and bovine bacilli are different types of parasites; he is convinced, however, that bovine bacilli are fully communicable to humans and are the cause of a large amount of tuberculosis in children. The author says that infection by human bacilli is conveyed from person to person and causes primarily pulmonary tuberculosis and secondarily tubercular ulceration of the intestine by swallowed sputum.

Infection of bovine bacilli takes place in the digestive tract from tuberculous milk and dairy produce, and causes other forms of tuberculosis, such as tubercular adenitis, tubercular peritonitis, tubercular joints and probably tuberculous meningitis and lupus. The author thinks that human tubercle bacilli do not attack the ordinary lymphatic glands of the body.

Until tuberculosis is reduced in dairy cattle, where it at present prevails to the extent of between 20 and 25 per cent., there will not be much reduction in the mortality from tuberculosis in children.

Human and bovine tubercle are antagonistic to each other in the human body. It has been shown that human bacilli produce immunity in cattle, and it is natural to suppose the converse—that bovine tubercle in children will protect them against human tubercle or phthisis.

Human and bovine tuberculosis are distinct varieties of disease, but the human body is susceptible to both, and especially to bovine tuberculosis in the milk-drinking period of life.

Fibromata in Uteri of Defective Conformation.—Boni (Arch. Ital. di Gin.) reviews 59 cases of fibroids, which he finds in literature, one of them observed by himself. The writer finds that fibroids in uteri of defective conformation occur most often in a uterus bicornis unicollis, because this is the most frequent anomaly. They are most frequent in the septum between the two divisions, rare in the cervix. They are not often of large size. The symptoms do not differ from those of fibromyoma in any other uterus, and in many cases the diagnosis of anomaly of the uterus is not made until operation takes place, unless there is some abnormality of the external genitals, or the vagina. In the author's case there were a double vagina, single cervix, and double fundus. Both fundi were affected by separate fibromata, that on the left being a large ovoidal tumor, covered only by the peritoneum. On the right the fundus showed two tumors. The right tube was changed into a cyst communicating with an ovarian cyst of the right ovary. The right uterus was smaller than normal, while that of the left side was large. The left tube and ovary were enlarged. The diagnosis of the anomaly was not made until the operation took place. There was a peritoneal ligament which led from the rectum to the bladder, inserted at the point of union of the two fundi. The question of the cause of this anomaly must be left in abeyance in most cases, asserting only that it is some unknown force that prevents the union of the two ducts of Muller in early intrauterine life.

Mitral Stenosis and Pregnancy.—French and Hicks (Journ. of Obst. and Gyn. Brit. Emp.) analyzed the obstetric histories of 300 women, over 20 of whom had mitral stenosis with or without other lesions. The cases were not selected but were taken consecutively from the records of Guy's Hospital. They found that

(1) Comparatively few are sterile.

(2) They are not especially liable to abort.

(3) The majority bear children well.

(4) When heart failure develops in relation to pregnancy it is very often not with the first pregnancy, but after several pregnancies.

(5) The treatment should be the same as for a non-pregnant patient with mitral stenosis.

(6) It is not just absolutely to veto marriage in all women with mitral stenosis. The dogmatic "No" of G. Jellett and of Porak is unjustifiable. It is right that the physician should make clear to the contracting couple, or to their near relatives, the risk run. He should use his discretion, and distinguish between one case and another. The risk should not be minimized but it should not be exaggerated. Whether the woman marry or not, it is likely that she will not reach old age. She should not have successive children rapidly. But if she has survived the age of twenty, with good cardiac compensation, the likelihood that pregnancy will accelerate the time of heart failure does not seem to be so great as has been declared in text-books.

Tuberculosis of the Female Generative Organs.—Varaldo (La Clinica Obstetrica) made numerous injections of human tubercle bacilli into the vagina and uterus of rabbits to determine the manner in which that infection spreads. The author concludes:

After injection of Koch's bacillus into the genital organs of normal rabbits no ascending tuberculous process occurs, there is no transmission from the vagina to the uterus, or from one uterine horn to the other. After injection into the upper part of the vagina during pregnancy, during labor, or in the first two days of the puerperium, direct extension of tuberculous infection to one of the uterine horns may occur. After injection into one uterine horn during pregnancy or in the first two days of the puerperium the passage of the tuberculous infection into the other uterine horn can be proved, and exceptionally, also into the tube of the infected horn.

Experiments show that during pregnancy, during parturition, and in the first two days of the puerperium, tuberculous infection can be diffused by ascension. This is to be explained by the free communication that exists then between the vagina and the uterus, or by the effect of uterine contractions, or by the fact that in the puerperal uterus of horizontal animals the elimination of the decidua of the uterine secretions is effected chiefly by the lymphatics.

The writer's experiments did not prove the occurrence of direct propogation of tuberculous processes from the genital to the urinary tract. Tuberculous material in the genital passage of puerperal rabbits causes rapid diffusion into other parts of the body, especially the lungs. This diffusion takes place through blood and lymph-channels. Tuberculous metritis not only does not hinder fecundation, but may even allow of pregnancy.

The Passage of Antibodies into the Blood of Nurslings.—La Torre (British Medical Journal) states that there is general agreement as to the elimination of antibodies by the milk. The only questions are as to whether they find their way in any useful quantity into the blood of nurslings, and if so, whether this happens constantly or only in the case of very young infants. The author criticises Salge's experiments in elucidation of these points as being too few in number and of purely scientific rather than of clinical interest. He made his observations on 17 healthy children of ages from one month to two years. To begin with, 22 children were available, but five of these began to suffer from gastro-intestinal disturbances and were left out of account. In five cases 3000 units of Behring's serum were injected into the wet nurse. In each of the other cases 6000 units were employed. This quantity of serum was administered in three injections at intervals of three days. The antitoxic power of the nursling's serum was tested the day before the first injection and again three days after the last injection. In the first series of 10 experiments from one-tenth to one-sixtieth c. cm. of the child's serum was withdrawn and mixed with from one to ten times the minimum lethal dose of diphtheria toxin and injected hypodermically into a guinea-pig. The object of these experiments was to determine whether any useful degree of antitoxic power could be conferred on the blood of nurslings by means of milk. In the second series of seven experiments a smaller dose of toxin was used, and an attempt was made to find in the time of onset of edema and other symptoms a means of measuring the antitoxic power conferred on the child's serum. The author found that the passage of antibodies was on a very small scale. The writer could only rarely satisfy himself that as much as one one-thousandeth part of the antitoxin injected into the wet nurse was present in the blood of the child. He therefore entertains no hope that the child can be immunized by injecting the wet nurse. The passage of antitoxin into the child's serum was not found to depend in any way on the age of the child.

Arterial Venous Aneurism of the Neck.—Young (Glasgow Medical Journal) mentions two patients wounded in the Boer war, one presenting aneurismal varix, the other a varicose aneurism. By aneurismal varix is meant a condition in which a large artery communicates more or less directly with a vein, the venous branches and trunk under the influence of the arterial pressure becoming dilated and pulsatile. Varicose aneurism is a lesion in which the opening between the artery and the vein is less direct, some sort of a sac existing between and around them made up of fibrous tiisue or altered clot.

The first case was shot through the upper part of the thorax, but was not operated on. Five years later he was working at his trade, that of an arc lamp trimmer, exhibiting a right pupil somewhat enlarged; no machinery murmur; some evidence of aneurismal enlargement about the junction of the innominate with right sub-clavian, a slight dispro portionate distension of the right superficial vein. This man, immediately after his injury, a bullet having passed through his right thorax, showed fulness over an area roughly circular and 2½ inches in diameter, of which the right sternoclavicular joint was the center; faint pulsation palpable over this area, also a strongly marked thrill; a loud systolic bruit audible in the same region; no pain or dyspnea. A few days later a typical machinery murmur was transmitted along both carotoid and subclavian arteries. The cure under conservative treatment was apparently complete.

The second case, also wounded by a Mauser bullet, which passed into the center of the right supraspinous fossa and out between the heads of the right sternomastoid muscle, three-quarters of an inch above the clavicle at a range of about 300 yards, suffered from hemoptysis and dysphagia for two days. Diminished right radial pulse, enlarged right pupil, pulsating swelling extending 1½ inches upward beneath the right sternomastoid muscle and two inches downward from the right intercostal space, and from the middle line of the neck back to the center of the right posterior triangle. The swelling was soft and yielding and with the wide-spread purring thrill palpable for some distance into the distal vessels, especially in the line and course of the right anterior jugular vein; thrill very superficial and easily extinguished by local pressure; felt readily in posterior triangle, but impalpable inthe suprasternal notch. Machinery murmur was audible over swelling and over almost the whole of the thorax, and also distally as far as the temporal, and the brachial at the bend of the elbow. Five years later found him working with a delivery wagon, but not lifting heavy weights. Was short of breath on exertion and troubled with palpitation. The heart was enlarged; there was a systolic aneurismal bruit, which became more and more apparent as the stethoscope was carried nearer to the base and over the sternum in the direction of the aneurismal swelling. It was heard at its maximum intensity over the clavicle at its inner end, and was conveyed well up the neck and as far as the brachial at the bend of the elbow. There was no purring thrill or evidence of machiney murmur. The radial pulsations were not different in strength and rhythm. Tumor was distinctly obvious, its lower edge seeming to pass behind the clavicle. It was given a bilobed appearance by the sternomastoid muscle passing over it. Pulsation was palpable and visable. A still later report showed further improvement, in that the swelling had diminished and the purring thrill and machinery murmur had disappeared.

The method of treatment for such cases advocated by Silverstone is ligature of artery alone above and below the communication with the vein. This in the case of the vessels of the neck would be an extremely difficult proceedure, since exposure of the aneurism has been shown by experience to be attended by very substantial risks. Direct or local ligation must in this region be departed from in favor of simple proximal ligation of the artery. In the first two cases recorded by Makins this was the treatment adopted for arteriovenous aneurism of the carotid, and the results fully justified its adoption, for in the one case all trace of aneurism had disappeared in the patient examined in 1904, and in the other the patient was able to report himself in 1905 as well enough to go out hunting, and to be able to sustain a good fall without evil effects.

Perforative Gastric and Duodenal Ulcer—Miles (Edinburgh Medical Journal) reports 36 cases of perforative duodenal ulcer, with a mortality in each series of 50 per cent. Of 19 cases operated on within twelve hours of perforation, over 74 per cent. recovered, whilst of 12 operated on in less than thirty-six hours after perforation 8 per cent recovered. Several of the patients were obviously moribund and were only operated upon for what seemed to be the last remaining chance. An occasional case justifies this course. The younger the patient the better the prognosis. Usually there is a previous history of severe indigestion, and in a considerable number of ulceration of the stomach or duodenum. Hematemesis is a rare antecedent symptom. Occasionally perforation

occurs in patients who have never hitherto suffered from any digestive disturbance. Symptoms premonitory of perforation are often present. The gastric perforations are usually in the anterior wall. There was a single case of multiple perforation. The most characteristic clinical features were the suddenness of onset and overpowering nature of pain, the marked abdominal rigidity, and the severe degree of shock. Vomiting was not unusually severe at the onset. The persistence of normal hepatic dulness does not negative a diagnosis of perforation. The seat of the greatest area of pain and of tenderness to pressure forms a reliable guide to the perforation, and therefore to the site of the incision.

The apparent improvement which accompanies the reaction from the initial shock is very deceptive, and apparently the administration of opium adds to the danger, since in 22 cases in which no opium was given 5 patients died and 17 recovered, and in 12 cases in which opium was given 10 patients died and 2 recovered. There is no constant relation traceable between the severity of the peritonitis which ensues and the size or the site of the perforation, the quantity or quality of the fluid which escapes from the stomach, the state of the repletion of the stomach at the moment of perforation, or any other single factor. Food particles are very seldom recognizable in food found in the peritoneal cavity. The abdomen should be opened as soon as possible by a vertical incision, passing between the fibres of the rectus, and usually placed over the site os the maximum tenderness.

It is almost never necessary to open the stomach to find the perforation. The suture of the stomach should be reenforced by an omental graft. Leakage is extremely rare. If closure of the ulcer has actually resulted in serious narrowing of the pylorus, gastroenterostomy should be performed. Pyloroplasty in place of gastroenterostomy is in certain cases a simple and efficient alternative. Usually the abdomen should be washed out, a special opening being made above the pelvis and for the purpose of drainage. To favor the latter the head of the bed should be raised. The complications encountered by Miles have been temporary gastric fistula, pneumonia, bronchitis, acute non-suppurative parotitis, phlebitis of the leg, pelvic abscess, subphrenic abscess.

Splenectomy and Banti's Disease.—Armstrong (British Medical Journal) reports a case of splenectomy performed on a man twenty-six years old, who at the age of eightsen and again at twenty had a slight attack of catarrhal jaundice. A year later, following trauma, he vomited dark material which may have been blood. This was followed by firm enlargement of the spleen, which became steadily aggresstve. Splenectomy was performed about six years after the accident with a successful result. The author has collected thirty-two cases, including his own, with twenty-three deaths and nine recoveries. The disease seems the most common between the tenth and fortieth years. The average weight of the spleen was about four pounds two ounces. When the patients recover they seem practically restored to health. Several cases were reported well after upward of six years from operation. It is noted that the frequent bleeding attacks to which the patients are subject cease. In this disease the splenic veins are extremely dilated, together with their contributory branches. Parts of the wall are thickened. In the majority of cases hematemesis has been a frequent and troublsome symptom, sometimes associated with melena. The sequence of events seems to be first enlargement of the spleen, which may precede by years any definite recognizable alteration in the blood. The dilated condition of the vasa brevia commonly observed in Banti's disease, and sometimes associated with esophageal varix, points to an obstruction of the passage of the blood through these vessels, and it is probable that this hemetemesis is due to this obstruction, since 40 per cent. of the blood in the stomach passes by the vasa brevia to the splenic vein. It is suggested that the primary lesion may be in the veins and that the splenic enlargement is secondary to the long-continued passive hypere. mia, and that the poison or poisons causing the subsequent alteration in the blood and changes in the liver are characteristic of the third and last stages of the disease, since, the disease is essentially and without exception progressive and tends ultimately to destroy life, excepting as when treated surgically splenectomy is indicated, particularly from the fact that it is followed by an immediate improvement even in advanced cases. The sooner the operation is undertaken the better, Since death from hemorrhage is the major danger the technique should afford perfect access for the control of bleeding. A vertical incision along the outer border of the left rectus, extending from the costal border downward as far as may be required, and joined by one at right angles to the first, and extending well to the left loin, enables the surgeon to deal safely with any adhesions on the outer surface of the spleen, and between it and the diaphragm, as well as the vessels of the pedicle. Special care should be taken

to arrest all hemorrhage from the vasa brevia and from the vessels contained in the lienophrenic ligament.

A Case of Mesenteric Thrombosis.—Smith (Bristol Medico-Chirurgical Journal) reports the case of a healthy man forty-five years old, who sixteen days before his admission to the hospital was seized with a severe but not crippling pain in his belly. After two hours he went home to bed, but the next day got up to dinner, and after eating stuffed pork suffered violent pains in the upper part of the abdomen and chest, and vomited. Thereafter he vomited drily. His bowels were opened four days before he entered the hospital. When examined by Munro Smith there was no distention; the abdomen was slightly tender on palpation. The pulse was soft and regular. The enema brought away a fairly semi-solid motion without blood. Two days later, because of the steady failure of the patient's condition, he was opened. There was found a three foot coil of ileum, purplish and mottled, with blue and dull red patches, showing no sharp line of demarcation between the healthy and unhealthy gut. There was no marked distention. He died the day following the operation, three weeks from his initial symptom.

The autopsy showed that the mesentery was full of small thrombosed vessels. The superior mesenteric artery was occluded by a thrombus about four inches long extending from three to seven inches from the orifice of the vessel. The upper part of this thrombus was firm, the lower part was softer and more recent. The mesenteric veins were also extensively thrombosed. There was no cardaic lesion nor atheromatous patches in any of the arteries. He says that about 170 cases of mesenteric thrombosis have been recorded, the great majority being of the superior mesenteric vessel, not the inferior, the proportion being as great forty to one, and that the arteries are more frequently blocked than the veins, as five to one. It is noted that there are no symptoms which enable a correct diagnosis to be mode during life, and even should this be made by opening the abdomen there is little or nothing to be gained toward the patients relief.

The Present Position of Experimentation on Syphilis.—(Deutsche Medzinische Wochenschrift) says that all experimenters agree in the great difference in susceptibility between the lower and higher apes. Inoculations upon the intact skin or mucous membrane, or subcutaneous or intravenous injections proved negative. In one instance he was able to produce syphilis in an ape by sectioning the testicle and implanting a bit of syphilitic tissue in the organ.

No increase or decrease in virulence has been observed by passing the syphilitic material through a series of animals. In order to judge of the time of onset of general infection, he injected numerous animals with the blood of infected apes, and foud that this was capable of causing syphilis even before the primary lesion had appeared. The semen and milk of these animals proved negative, whereas the spleen, bone-marrow, glands and testicles gave positive results. Secondary symptoms were seen in the cases of anthropoid apes, but not in the lower varieties.

The Wasserman-Bruck serum reaction was of value. It proved positive in 77 per cent. of the cases, and in doubtful cases coincided with the later symptoms. It was obtained with the blood, tissues and spinal fluid, and was missed in the tests on non-syphilitic individuals.

Therapeutic measures were tried experimentally. Excision of the point of inoculation was of value only if carried out a few hours after the injection was made. To counteract infection cauterization with 2 to 3 per cent. carbolic acid or corrosive sublimate, or the application of calomel proved of value; however, 1 per cent. corrosive sublimate, blue ointment, iodoform and other antiseptics were of no value.

Wounds of the Heart and Their Operative Treatment.—Wendel (Archiv fur klinische Chirurgie) discusses all the operation which have been proposed for exposing the heart after injury, and shows that the important characteristics of such an operation are that the first incision may open neither the pericardium nor pleura, that the flap of the chest wall can be enlarged upward or to the right if necessary. The idea that the flap must be made rapidly on account of danger from loss of blood is unfounded, an little or no hemorrhage occurs till the pericardium is opened. The flap should therefore be free enough to allow rapid work after that is done, The internal mammary artery should not be cut. The incision must begin about the fifth inter-space near the sternum as here the pericardium is directly against the chest wall. A primary resection of the sternum should not be necessary.

The incision of Landulli, which begins in the third interspace one and one half inches outside the sternum, runs to the fourth and and fifth cartileges, and outward again in the fifth space, is very good and does not open the pleura. It can be easily enlarged to the right, but not so easily upward. In this the incision of Kocher is better.

Kocher's incision, which is the best so far proposed, begins in the midsternal line op-

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posite the third rib, and runs straight down to opposite the sixth rib and along its cartilage. The periosteum and perichondrium are scraped off and the cartilege resected below it, allowing the flap to be turned back exposing the pericardium. After the pericardium is opened the surgeon must be guided by circumstances. The pleura should be closed without drainage, and if drainage is required a rib should be resected posteriorly. The author differi from Tschernachowski in' recommending that the the pericardium also be closed without drainage.

Blood Changes Produced by Night Work.—(Gardenghi (Wein. klin. Wochenschrift) says that persons who work continuously at night, such as bakers, have a pale color of the skin. He has found by animal experiment that on withdrawal of sunlight a marked diminition of the hemoglobin and blood iron is noted, The reduction of the iron is somewhat less than that of the hemoglobin. The number of blood corpuscles, both red and white, is not altered; the ratio of the various kinds of leucocytes also remains unchanged.

He thinks that is probable that withdrawal of light causes a deficiency in the absorption of iron and the formation of hemoglobin, rather than a destruction of the hemaglobin already formed. Accordingly, there is a noteworthy connection between hemoglobin and chlorophyl of plants, the formation of which, as is well known, also is dependent upon sunlight.

The Use of Forceps.—Demalin (British Medical Journal) mentions under what circumstance the application of forceps, being apparently indicated, may be deferred or avoided. The author deprepates the present teaching that the forceps are to be used very exceptionally; he considers a good pair of forceps, handled with care, slowly and gently is an invaluable instrument. Many cases are met with in practice in which it is possible to temporize or even to abstain from their use; there are others in which it is absolutely indicated to save the life of the fetus or mother. Presentations of the shoulder or breech call for extraction by the feet, but when the head is fixed or engaged and the uterine muscle is retracted instrumentation is needed. The question whether to wait or to assist is often difficult to decide when there is no danger and the labor is normal only tardy; this occurs usually in primpaae which have been exhausted by the long period necessary for the dilation of the os. After twenty to twenty-four hours of

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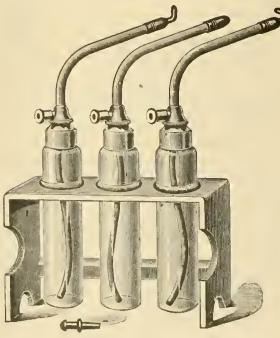

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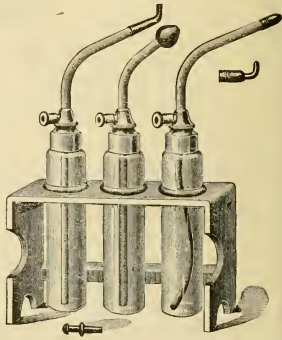

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To the suggestion that the Police Department issue a special permit to doctors to exceed the speed limit in visiting urgent cases the Medical Record remarks:

"We trust the Police Department will not accept any such suggestion. No case is so urgent as to warrant exposing a city full of children, the aged and the infirm to the danger of fatal injury by a speeding motor car."

An excellent way of administering castor oil, says the British Journal of Nursing, is to pour hot (nearly boiling) milk into a bottle, then add the oil which should be ⅓ the quantity of the milk, and shake the bottle till the two are well blended, forming an emulsion. A glass in which oil is put for administration should always be wet with plain water or with lemon juice to prevent the oil from sticking to the glass.

A national petition is being started in France by the labor unions, aided by the leading deputies of the Left, says the Medical Record, to prohibit the manufacture and sale of absinthe. More absinthe is consumed in France than in the rest of the world put together.

More than a million of infants have been killed by the various decoctions known as soothing syrups and pain killers, says Dr. H. W. Wiley of the bureau of chemistry of the Department of Agriculture. Impure milk has cost the lives of more than twice that number of babies.

labor the pains become few and feeble and the patient inclines to sleep; if then the fetal heart sounds are normal and there is no sign of meconium in the amniotic fluid, it is wise to allow her to sleep an hour or two. On awakening give an alcoholic drink, hot, with plenty of sugar in it, since sugar is a good muscular stimulant; follow this with a hot bath and a large dose of sulphate of quinine, and generally expulsive efforts will be reestablished and terminate favorably. Hot douches do not reach the uterine muscle when the head is engaged and low down. When there is complete dilatation and the membranes are still intact, they must be ruptured in an interval between the pains. Some women, although vigorous, are nervous and cowardly when they feel the head on the perineum, cease from expulsive effort, and make no progress. A few whiffs of chloroform are sufficient to encourage the patient and produce the desired result.

In primiparae, in spite of strong effort the firm perineum prevents progress; it is permissible to add abdominal expression to the efforts of nature. Mounting upon a chair beside the bed the palms of the hands are placed on the fundus, and when the contractions occur steady pressure is made upon the fetus in the direction of the pelvic outlet, the perineal resistance is thus overcome, and the application of forceps is avoided. In a case in which there is full dilatation of the os and no advance is being made, examination may show the head lying in the transverse or oblique diameter, and not fully flexed. It is possible to assist the head to flex and turn; this is best done during the pains by introducing the first finger into the vagina, and during the contraction pressing upon the head near the anterior fontanel in such a manner as to promote flexion, or it may be possible to get under the convexity of the occiput and draw it downward. By pressing behind the ear in the direction required rotation is assisted; should the contraction cease before complete rotation is effected, the hand should be retained in position ready for the next pain. Rotation and flexion having been procured delivery will not be long delayed. There should be a limit to the time of waiting after the full dilatation has occurred. In uterine inertia often one may safely wait for five or six hours, but it is unwise to allow the maternal soft parts to be bruised too long between the head and the bony pelvis; there is a risk of edema, lacerations, and possibly of fistula resulting.

When the pains are vigorous and no progress is being made two hours after full dilatation, interference is necessary. Such cases used to be left for ten or twelve hours until the fetal head was increased in size by a hematoma, and the difficulty of delivering resulted in a torn perineum, a vesicovaginal fistula, and infection by lacerations. These fistulae are now very rarely seen. In deciding whether to wait or to intervene, the position of the head in the cavity is an important point. As long as conditions are favorable it is well to temporize, but when symptoms of urgency arise there should be no hesitation in applying the forceps.

Two Remarkable Cases of Brain Surgery.—Amberger (Dtsch. Med. Woch.) describes two cases. The first consisted in cerebral abscess, subsequent to an infected wound of the forehead, in a boy six years of age. When the wound had entirely healed, at the end of three weeks, certain symptoms indicative of brain abscess developed, such as anorexia, persistent headache, vomiting, rise of temperature, and right-sided convulsions. Operation was resorted to, showing the presence of an abscess in the left frontal sinus. X-ray pictures had yielded negative findings.

The second patient was a man 22 years of age, who had traumatic parencephaly. In the spring of 1905, he met with an accident, striking his head against the corner of a table. Four weeks later he began to complain of severe headache and nausea A watery fluid escaped from the left nostril, and there existed well-marked psychic depression. The ocular fundus was normal. Above the left frontal bone was a depression of the skin and the bone. The X-ray image showed a shadow almost the size of a hand in the area of the injury. At the operation, a considerable amount of clear serous fluid escaped after incision of the cerebral surface. The examining finger entered a large cavity with smooth walls, reaching as far as the roof of the orbit and into the anterior horn of the lateral ventricle. The cavity was drained, much secretion persisting for the first three weeks following the operation. The patient then made an uninterrupted recovery, without any subsequent manifestations on the part of the brain.

The Relation of Adrenalin to Muscular Fatigue.—Dessy and Grandis (Arch. Ital. de Biol.) were inspired by the following experiments and observations of other authors: In 1891-92 Abelous, Langlois and Albanese, observed that animals deprived of the suprarenal capsules are incapable of performing prolonged muscular actions and that they rapidly succumb to a short exertion. These results the above experimenters attribute to the fact that the internal secretion of the suprarenals neutralizes the toxic products of the muscular contraction. This

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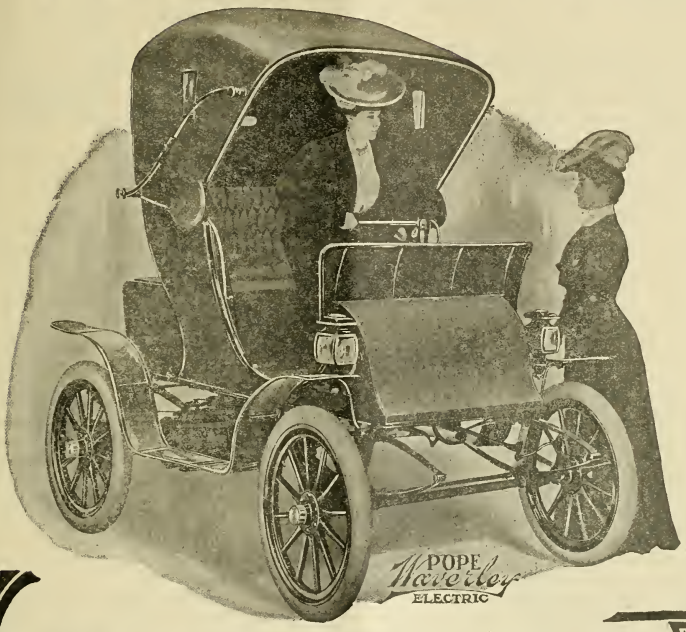

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observation served to explain the clinical experience that individuals affected with Addison's disease present a marked degree of adynamia. Battelli found that during fatigue the quantity of adrenalin in the suprarenal capsules diminishes, and that during the hours consecutive to an intense degree of work, the suprarenal capsules contain an amount of adrenalin greater than the normal. This observer based these facts upon the hypothesis that adrenalin passes into the circulation in order to neutralize the depression produced by muscular work. He explained the later increase in the amount of adrenalin by the supposition that the organs, particularly the muscles and nerves, produce a proto-adrenalin, which the suprarenal capsules transform into adrenalin. The authors of the present paper, considering this explanation too complicated, sought more direct reasons for this phenomena. They studied the effect of adrenalin upon a muscle which had passed into fatigue. They found that when, after a long series of contractions, the muscle has lost its power to contract, if 2 c.c. of an aqueous solution of suprarenal capsule be injected into the dorsal lymphatic sac (the solution being prepared by dissolving 5 gr. of dried suprarenals in 100 c.c. of distilled water), after from two to eight minutes, the muscle begins again to contract, and continues to do so for a period longer than that seen at the beginning of the experiment. On examining the graphic curve, it is found that the adrenalin, while neutralizing the effect of fatigue, does not do so entirely, for the renewed contractions are not as strong as those seen after a period of normal repose. This deficiency of strength is probably to be attributed to certain changes produced in the muscular fibers apart from the action of the toxic products of the muscular contraction. The authors found that animals which have been for a long time in the condition of fasting, possess a greater susceptibility to the fatigue-neutralizing action of adrenalin. One might say that the suprarenal capsules, of all the organs, are the ones which are the most profoundly affected by fasting. Probably to the absence of the function of the suprarenals may be attributed the muscular debility characteristic of an insufficient diet. The researches of the authors show that a fatigued muscle, in spite of the large amount of work accomplished, has not in reality exhausted all its energy, since, without resting an instant, it can begin again to contract, by receiving a small quantity of adrenalin. It would appear that the latter drug neutralizes the action of the toxic substances produced during the muscular contraction. But the suprarenal capsules cannot counteract entirely the effect of muscular fatigue. One is lead to the conclusion that the muscular substances is affected by the contraction, so that, in spite of the protection afforded by the suprarenal capsules, the time comes when the muscle can no longer contract. It is therefore necessary to restrict the term "muscular fatigue" to the disability which cannot be overcome by adrenalin. From the study of the action of adrenalin on unstriated muscular fibers, the authors draw the general conclusion that this substance acts upon the contractility of protoplasm. The hemostatic power of adrenalin probably depends upon the fact that the latter, in neutralizing the products of contraction, permits the vasoconstrictor nerves to develop their entire activity and to keep the small vessels contracted for a long time. In the same manner may be explained the rapid and brief increase in blood pressure following the injection of adrenalin, which increase is dependent upon the action of this substance upon the myocardium and upon the muscular tunic of the arteries. The action of adrenalin is a transient one, since this secretion is rapidly oxidized by the arterial blood.

Heart Complications in Dysentery.—Nenninger (British Medical Journal) has analyzed the cardiac complications of a number of cases of dysentery which came under his care. Most of the patients were suffering from the chronic form; a few were seen under the influence of relapses. In many instances the first sign of cardiac involvement appeared during convalescence, and was a marked acceleration of the pulse-rate on rising during the terminal state a marked rise was noted, which was even greater in degree than that seen in the hemoglobin during that state. Observations upon the relationship between the condition of nutrition and the number of erythrocytes showed that the slight diminution in the number of cells corresponded as the disease advanced with the gradual loss of weight, but in the terminal state, when the loss of weight was exceedingly marked, the number of cells increased considerably.

The examination of the leucocytes did not give any uniform results. In three of the cases a gradual fall was noted, while in three others in which they were low at the time of the first examination they remained low, and in three more they varied during the whole period. In all these cases, however, a rise in the number of leucocytes, amounting in most to a leucocytosis, was recorded during and immediately preceding the onset of the terminal state. In examining the percentage of the different forms of leucocytes by differential counts a uniform pathological increase of the polymorphonu-

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clear variety occurred in all but one of the eleven cases. This increase was most pronounced during the terminal stage, with the exception of one case, in which it was at its height during a stage of excitement some months before, though in this case the average highest percentage occurred during the terminal stage. The progressive moderate anemia involving especially the hemoglobin, and the tendency to a polycythemia and an increase in the percentage of the hemoglobin in the terminal state, were the conditions of most importance noted; while of the pathological conditions in the leucocytes the most important were the appearance of a terminal leucocytosis and the presence of a leucocytosis in paretic attacks of an epileptiform nature, together with the uniform increase throughout the disease of the polymorphonuclear variety. The presence of a leucocytosis in the terminal state and during paralytic attacks suggests the toxic origin of the disease.

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The Stages of Tuberculosis in Children.—Hutinel and Lereboullet (British Journal Children's Diseases) say that the mode of entry is pulmonary, digestive, cutaneous or otherwise. This tuberculosis may remain latent indefinitely or become attenuated; it even seems in certain cases to confer a kind of immunity against further attacks. These are the favorable cases which end in more or less complete cure, as proved by the frequency with which tubercular foci are found at the autopsies made at the Enfants-assites (more than one-third of the cases), and by the fact that there were only 19 phthisical children among 18,000 that were sent to live in the country. In other cases nutritional disturbances occur, the so-called pretubercular state is established, and instead of protecting, it predisposes to a further and more serious tuberculosis. This second stage is either an auto-infection, often excited by some intercurrent affection such as measles or whooping-cough, or is the result of a fresh access of tubercle from without, to which the debility caused by the latent tubercle renders the patient more vulnerable. It may then develop as either an acute, sub-acute or chronic affection. As it is curable it may sometimes become quiescent until fresh causes start a third stage similar to the second. This hypersensibility to attacks of the bacillus is comparable to that of certain serums and toxins (anaphylaxis), in which certain substances—"aggressines"—are formed in the exudation produced by the latent tubercle which prevent phagocytosis upon freshly inoculated bacilli. This evolution of infantile tubercle by stages is comparable to what occurs in other chronic affections such as syphilis, glanders and especially leprosy. It is thus important, not only to prevent tubercular contagion (the effects of which act equally on those free from and the subjects of latent tubercle); but also to strengthen the organism to defend itself against attacks of the tubercle bacilli, which too frequently exist there already.

Streptococcic Puerperal Infection.—Zangemeister and Meissl (Zeitschr. f. Geb. u. Gynaek.) made extensive bacteriologic investigations on 50 different streptococcus cultures obtained from various sources with a view to testing their pathogenicity, virulence against immunized animals, etc. The authors results corroborate in general the findings of Natvig, inasmuch as they were able to show that all the streptococci examined belonged to a common parent. In particular they could show the identity with the true streptococcus pyogenes of a number of saprophytic streptococci found in lochial discharges. From this, two important practical points can be deduced. In the first place, the possibility of an infection through such streptococci as are for the time being merely saprophytes; secondly, the possibility of immunizing against all sorts of streptococci. The fact that, at least for certain animals, it was possible to protect against all forms of streptococci by the use of two different and distinct sera, that of Aronson and that of the Rochester Farbwerke, is evidence in favor of this view. Both sera were, it is true, made with the use of several streptococcus stems, were thus polyvalent, yet were nevertheless able to protect against a great many, in fact all the various sorts of streptococci that were injected into mice.

Tuberculosis of the Female Generative Organs.—Varaldo (La Clinica Obstetrica) made numerous injections of human tubercle bacilli into the vagina and uterus of rabbits to determine the manner in which that infection spreads. The author concludes:

After injection of Koch's bacillus into the genital organs of normal rabbits no ascending tuberculous process occurs, there is no transmission from the vagina to the uterus, or from one uterine horn to the other. After injection into the upper part of the vagina during pregnancy, during labor, or in the first two days of the puerperium, direct extension of tuberculous infection to one of the uterine horns may occur. After injection into one uterine horn during pregnancy or in the first two days of the puerperium the passage of the tuberculous infection into the other uterine horn can be proved, and exceptionally, also into the tube of the infected horn.

Experiments show that during pregnancy, during parturition, and in the first two days of the puerperium, tuberculous infection can be diffused by ascension. This is to be explained by the free communication that exists then between the vagina and the uterus, or by the effect of uterine contractions, or by the fact that in the puerperal uterus of horizontal animals the elimination of the decidua of the uterine secretions is effected chiefly by the lymphatics.

The writer's experiments did not prove the occurrence of direct propagation of tuberculous processes from the genital to the urinary tract. Tuberculous material in the genital passage of puerperal rabbits causes rapid diffusion into other parts of the body, especially the lungs. This diffusion takes place through blood and lymph-channels. Tuberculous metritis not only does not hinder fecundation, but may even allow of pregnancy.

Pathogenesis and Clinical Forms of Infantile Dysentery of Bacillary Origin.—Auche and Campana (Arch. de Med. des

Enf.) have made bacteriological and clinical observations in ninety cases of dysentery seen in the Infants' Hospital at Bordeaux. Out of these cases the bacteriological tests were positive in thirty-three cases. In five others the serum reaction was positive. Hence the dysenteric nature of the disease was demonstrated in thirty-eight cases. The authors believe that true dysentery is much more frequent among children than is ordinarily thought. In 14 cases the bacillus of Shiga was present; in 17 cases the bacillus of Flexner; in 7 that of Strong was found. Hence there are three types of germ and there are some general differences in the symptoms produced by the three. There were serum reactions of agglutination of each type of bacillus for the cases produced by the same bacillus, but not for the other types of germ. The agglutinines of the sera of Shiga and Flexner are different and their behavior to sugars is different; that of Shiga is without action on mannite and maltose, while that of Flexner causes fermentation in them. Their pathogenic power is different. The bacilli of Shiga and of Flexner are the representatives of two races of a single and similar germ, and not of two specifically different germs. The bacillus of Flexner and that of Strong are differentiated by a single biological characteristic: Flexner's ferments maltose, Strong's does not. The authors conclude that dysentery in infants may be caused by any one of these three germs. The clinical characteristics of these three types differ very little and not sufficiently for us to describe three different types of disease. The only means of diagnosis is the demonstration of the kind of germ and the agglutination reaction. The germs and the characteristics of the disease are the same as in adults. In the disease as produced by Shiga's bacillus the onset is marked by intestinal symptoms; with that of Flexner the gastric symptoms are more marked at first. Fever is about the same in the three forms, and has a relation solely to the severity of the disease. The same is the case with the colic and tenesmus. The Shiga bacillus always produces the characteristic symptoms of dysentery, muco-sanguinolent stools, colic and tenesmus, with moderate fever. That of Flexner may not give the characteristic stools, and the disease is somewhat shorter. That of Strong acts the same as that of Flexner. The Shiga bacillus seems to attack younger children than that of Flexner. That of Shiga is truly contagious, and often epidemic. That of Flexner is epidemic, there being often several cases in the same ward.

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Chorea and Rheumatism are Related. Duckworth (British Medical Journal) says that the effects of the toxins of rheumatism are spread much beyond articular or cardiac tissues; and the throat, the skin and the brain are frequently involved. The pathology of choreic and of rheumatic endocarditis are identical. Rheumatism is an infection; and Poynton's diplococcus of rheumatism, the micrococcus of Walker and the chorea streptococcus of Wasserman are all three identical. Although chorea is never caused by shock or fright, yet a neurotic factor must be admitted in a true conception of its pathogeny. The young, especially female, are most prone to it, probably for the reason that in these subjects the rheumatic toxin is apt to spread more widely and to act with greater intensity than in adults. The adolescent brain is also the more unstable. Chorea is distinctly more frequent in families prone to rheumatism; it may precede by many months an attack of rheumatic fever, or may supervene during an attack. The disease occurs markedly among the nervous or unstable members of a family. It is, therefore, a true cerebral rheumatism.

Observations on Fractures of the Upper Extremity, with Reference to the Resulting Disability and Treatment.—Nuthall (Birmingham (England) Medical Review) after a consideration of fifty-eight fractures of the humerus concludes that for fractures near the shoulder-joint restriction of movement is to be expected. Impaired movement occurs in 50 per cent. of fractures near or involving the elbows. The writer advises in all elbow injuries examination and correction of the displacement under general anaesthesia at once, but states that in adults in the great majority of cases fractures of the humerus entail prolonged and very serious disability, with the exception of those of the shaft. The author has recorded sixty-four cases of fractures of both bones of the forearm. The seat of fracture is usually in the middle third, and satisfactory result as regards strength and functional capacity was the rule. Fractures of the ulna heal without complication and give full functional results, whilt in fractures of the radius, excluding Colles's fracture, there was in some cases a failure to attain full functional capacity.

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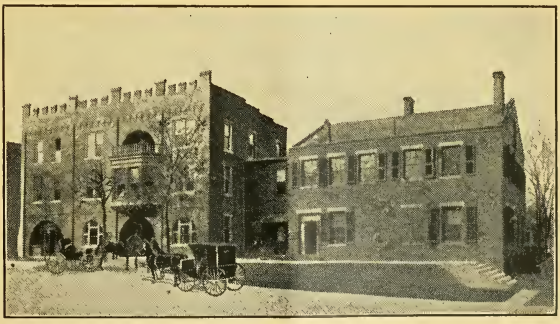

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elbow-joint. In each of these a strong arm resulted; the range of extension and supination of the forearm was restricted to about three-fourths of the full involvement. There were sixty-six cases of Colles's fracture of the wrist. There is very commonly associated injury to the styloid process of the ulna; in a few cases hemarthrosis. He advises immediate and thorough replacement of displaced ends of bone by forcible manipulation under an anaesthetic, and regards this as the most important procedure in the treatment of Colles's fracture. Pain was the most common complication, situated as a rule at or about the ulnar styloid process or internal lateral ligament, usually most pronounced in those cases which were unreduced. As to the results, in 37 cases there was a moderate grade of deformity, and in 16 there was marked deformity. In 25 cases out of the 60 there was complete functional recovery. In 21 there was some impairment of function due to weakness and stiffness of the hand. In 14 the hand was seriously crippled by pain, weakness, and stiffening of the joints. These cases, however, were not followed for any very long period. In 28 cases separation of the lower epiphysis of the radius occurred; most of these exhibited some displacement. The functional results were uniformly satisfactory, though there was some thickening and deformity in a number of cases.

Stenosis of the Upper Respiratory Organs Secondary to Tracheotomy and Intubation.—Comba (Rivista Clin. di Ped.) treats of the mechanical causes which prevent extubation after tracheotomy and intubation in infants. The author considers tracheotomy separately. Primary stenosis is due to swelling of the tissues, fibrinous exudate, and reflex spasm of the glottis. When the diphtheritic process extends deeply it may produce destruction of tissue and ulceration, even perichondritis and chondritis with cicatricial contraction. Such stenosis is the direct result of the disease. Another cause is a chronic infiltration of the hypoglottic region, which prevents removal of the tube. Exuberant granulation of the tracheotomy wound may result in formation of a cicatrix which contracts. These granulations may come from pressure of the cannula, bad form of tube, or long retention of it. The superior and inferior angles of the wound are especially liable to granulation. The marked granulation may be due to the severe type of the disease, to the presence of staphylococci or streptococci, or to a mixed infection with scarlatina. In very young babies it is marked. Cricotracheotomy produces it more frequently than pure tracheotomy. If the stenosis is at the upper part, the air is observed to pass in small quantities from the mouth. If at the lower angle, as soon as the cannula is removed the child is attacked with inspiratory dyspnea, and on re-introducing the tube the mucous is tinged with blood from injured granulations. If the granulations are on the posterior wall of the trachea there is aphonia and difficult respiration on pressing on the outer end of the tube. If the granulations are absorbed the result is good. Otherwise a persistent cicatrix results. The treatment is prophylactic; superior tracheotomy is to be preferred and the cricoid avoided; well shaped cannulæ, not too large, are to be used, and for as short a time as possible. Granulations should be scraped away and cauterized, and any cicatrix dilated gradually. The trachea may be deformed by the tube and cicatrices result. The remedies are similar to this form of cicatrix. In intubation the ulcerations are due to too large or heavy tubes, unskilful introduction, too long presence of the tube. In some cases decubitus comes on at once, due to the severity of the diphtheritic process, or a mixed infection may give rise to rapid decubitus. Diagnosis is made by laryngoscope when possible, by pain, bloody sputum, repeated expulsion of the tube, stenosis immediately after attempts at re-intubation, and the presence of black spots or concretions on the tube. Prognosis of complete stenosis is grave. In the lighter forms persistent dilatation results in a cure. The tube should be used for as short an interval as possible, and secondary tracheotomy should be done when the child cannot breathe without it after a few days. Some operators have covered the tube with a film of gelatin impregnated with alum, iodoform, or other drug, with good results. When slow dilatation with sounds does not succeed divulsion with forceps may be done.

Does Danger to the Sight Caused by Pregnancy Justify Abortion or Premature Labor?—Germann (St. Petersburg med. Woch.) divides eye troubles incident to pregnancy into two groups: functional disturbances and organic changes in the eye, and their results. The causes are changes in the blood and in the circulation. The absolute quantity of the blood is increased in pregnancy and hence it becomes more watery and poorer in red blood corpuscles, albumin and salts; that is it is hydropic. The lessening of hemoglobin may amount to as much as eight per cent. The chloranemia passes away as soon as labor is accomplished. The nourishment of the nervous system may suffer from the anemia. Autointoxication is another factor in the eye symptoms. The slight, functional defects occur in the first half of preg-

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is absolutely unresponsive to treatment until labor is over, and ends in ulceration and a thick leukoma that leaves only perception of light, or a phthisis bulbi. The ulcer is painless and remains open until the patient's physical condition can be improved by labor or by stopping lactation if that is going on. The ulceration is thoroughly indolent and there is very little injection. The author describes a number of interesting cases. His conclusion is that eye complications dangerous to sight justify the production of abortion or induction of premature labor, with the object of saving as much sight as

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possible to the mother. After such an eye complication has once taken place the danger to sight increases with each succeeding pregnancy. These complications are better known to the oculist than to the family physician, hence the author thinks it very important that the general practitioner should become acquainted with their nature and the indications of the condition.

Spastic Diseases of Infancy.—Haushalter and Gollin (Ann. de Med. et Chir. Inf.) say that the expression spasmodic diseases of infancy is applied to affections characterized by persistent spastic troubles, combined with an alteration of pyramidal tracts occurring during development. They should not be so considered in cases arising before the fourth year, since at that time the development of these tracts is complete. Clinically there are five groups: 1. Infantile hemiplegia, monoplegias with contracture, and spasmodic segmentary facial paralysis. 2. Spasmodic bilateral hemiplegia. 3. Double athetosis and congenital chorea. 4. Pure spasmodic rigidity and the same in the congenital form. 5. Spasmodic, familial affections. Etiology is unsatisfactory: premature labor, severe labors, etc., are included as factors. The lesions of the pyramidal tracts are primary or secondary. In most cases the primary lesions are encephalic. Dejerine has published two cases in which the lesions were primitive medullary ones. Encephalic lesions almost always involve the anterior cerebrum. The nature of the lesion is various: there may be sclerosis or atrophy, meningo-encephalitis, porencephaly, hydrocephalus, softening or histological alterations without macroscopic lesions. Of secondary lesions that reach the motor cortical fibers there may be sclerosis, agenesia, dysgenesia and degeneration. The motor cells of the anterior horns and those of the spinal ganglia are always intact. Thus there are two forms, cerebral and spinal, and they are not to be differentiated by the symptoms. Secondary to them are lesions that are the essential element in contracture. There is always a lesion of the pyramidal tract, whether its origin be cortical or not. Spasmodic contracture in infants is always associated with an intact reflex arc. The necessary lesion is one of sufficient intensity to cause destruction in the spinal portion of the pyramidal tract.

Transplantation of Human Ovaries.—Cramer (Munch med. Woch.) states that experiments on transplantation of the ovaries in the lower animals have given some encouragement to work in this line in the human race. In guinea pigs, in which the ovaries of the same animal had been transplanted, the ovaries became attached and performed their functions without atrophy for some months. In two cases of Knauer's, after resection of the adnexa, a piece of normal ovary was implanted in the tube. Pregnancy occurred in these cases after some months, showing that the ovarian substance had, to all appearances, undertaken normal growth. Other authors have transplanted ovaries into other portions of the pelvic organs, as the uterus and broad ligament without success. The author transplanted the ovaries from women suffering from osteomalacia, but in whom the ovaries were in normal condition, into patients in whom there was atrophy of the ovaries. The ovaries were kept in warm normal salt solution until they were ready to be implanted. In the first case there was atrophy of uterus and ovaries in a woman 23 years of age, with amenorrhea, for a year or more. Thd two patients were operated on simultaneously. The atrophied ovary was split and the normal ovary of the osteomalacic patient placed in the cleft and sewed in, so that it was enclosed by the cortical substance of the atrophied ovary. Healing was perfect. The patient menstruated normally twice, with tenderness of the breasts and colostrum in the glands. Eight weeks after operation the uterus had grown from two and one-half centimeters to seven centimeters in length. The next menstrual period was absent and one month later an abortion took place at about six weeks. In the second case the transplanted ovary underwent atrophy and disappeared.

Kraurosis Vulvae.—Jayle (La Presse Med.) tells us that kraurosis vulvæ is an affection of the vulva characterized by progressive, sclerotic atrophy of the mucocutaneous coverings of the vulva, with a disappearance of the labia minora, small size of the labia majora, atrophy of the clitoris, retraction of the vestibular and hymeneal region, and stenosis of the vaginal orifice. It should be distinguished from leukoplakia of these regions, which is confined to the skin and may or may not exist with kraurosis, consisting in the development of white patches on the muco-cutaneous surfaces. Kraurosis is essentially a lesion of the derma, while leukoplakia involves the epidermis alone. There is an absence of specific anatomical lesions in kraurosis vulvæ. Retraction of the skin of this region is not rare, and takes place under the most different circumstances. We may have stenosis of the vaginal orifice combined with prolapsus uteri. It is therefore a clinical syndrome arising from different causes, not a morbid entity. There are several varieties. In the white form there is a pale color of the retracted labia majora,

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retraction of the posterior commissure, atrophy of clitoris and glans, and disappearance of the labia minora. Symptoms are pruritus and painful tightness of the skin. There is a chronic inflammation of the epidermis and subepidermal tissues. This variety may be of syphilitic origin. The surface of the vulva may be red instead

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of white, there being an abnormal development of the superficial vessels, accompanied by intense congestion and suppuration of the follicles of the vestibule and orifice of the vagina. It may also occur as a senile atrophy, or a post-operative sequela, especially after castration. Kraurosis occurs under many different circumstances and its pathology is by no means clear. The acute inflammatory conditions are not associated with it. Syphilis and castration are the most frequent causes. The author believes that castration has an influence of a reflex nature caused by the absence of the ovary. Kraurosis may occur in females in whom there is atrophy of the ovaries. Kraurosis is in a considerable number of cases complicated with cancer, though we cannot say just what is its relation to that disease. Treatment often involves that of an accompanying metritis. It consists of the use of soothing washes, alkaline diuretics, and bladder washing when the urine is irritating, and cauterization of the inflamed points with strong permanganate of potash solution. This should be passed into the crypts of the glands with a small stylet. When there is dyspareunia removal of the sclerosed tissues may be necessary.

The Treatment of Pulmonary Tuberculosis.—Reissmann (Australasian Medical Gazette) says that rest is one of the most precious remedies which a physician may prescribe, and it is nowhere more valuable than in consumption; and here it may be said that to make a patient cough violently or take unnaturally deep breaths in order to satisfy one's self that a rale or a click is to be heard may be permissible at the first examination, but it should not be repeated while healing is taking place. One would no more think of doing so than a surgeon would think of dragging asunder the edges of a recent wound to see if firm union were yet established. Absolute rest in bed is required of every patient when he first comes under treatment. He must continue in bed if the disease is extending, if the temperature reaches 100 degrees, if he has pains in the chest, or if he has certain complications. As soon as it is considered safe to permit the patient to leave his bed he may dress, but he must spend the whole day lying on a lounge. After a few days, provided there has been no alteration in his condition, he may take a short walk on level ground, the distance being gradually extended until he walks several miles a day. Later, if there is no reason to forbid it, he is allowed to walk up a gentle rise, and this exercise is again extended until ultimately the patient climbs a fairly steep hill twice daily without rise of temperature, without dyspnea, but with improvement in his general condition and increase of weight. If the patient has successfully passed this test he is given further exercise with a light pick, then with a heavy pick. Later on he uses a light shovel, and then a heavy shovel. If he continues to improve he is ordered to saw a certain quantity of wood, and lastly he may be ordered to chop wood. Wood-chopping is very severe exercise, and it is only required of patients who have done exceptionally well and whose natural occupation is arduous. Other forms of exercise are sometimes ordered, such as egg-gathering or wood-stacking, etc. The great point is to order a system of graduated exercise, to examine the patients daily, and to keep a careful record of pulse, temperature, and respiration before and after exercise. If this is done no harm will come to the patient; he will improve.

On entering the sanatorium, and while in bed, almost every patient begins to increase in weight, and one would imagine that a patient who has been steadily increasing in weight during the weeks that he has been lying down would lose weight when he begins to take exercise. If the exercise is graduated the patient will continue to gain in weight, and he will even gain more rapidly than when he was lying down. This the author has repeatedly noticed. Exercise creates a healthy appetite, which must be satisfied with an appropriate diet. While a liberal diet should be supplied to a consumptive patient, the actual amount of food given should depend upon the digestive powers of the individual. If it is true that the prognosis of a case depends largely on his digestion care must be taken not to overtax the organs of digestion. Overfeeding is to be deprecated. Fresh milk is an excellent food, and it is the author's practice to make every patient take a tumber of milk every two hours. This is equivalent to supplying him with 840 calories of heat, which is about a quarter of the total heat value of a full diet. The author advocates the use of raw beef. When meat is cooked the proteids are coagulated and rendered less digestible. Patients with feeble digestive powers take raw beef very well, especially if it is called by another name, such as German sandwich. Milk soup is made by shredding beef and suspending it in warm milk. Raw beef is said to be valuable because it largely increases the digestive leucocytosis, but the writer is not sure that the kind of leucocyte concerned is the same which attacks the tubercle bacillus. Oils and emulsions of oils are useful because they are fatty food-stuffs. Cod-liver oil has no advantage over olive oil, which is taken by most of his patients. The heat equiva-

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lent of a teaspoonful of olive oil is equal to that of one egg.

It is seldom that the author uses creosote, guaiacol, or other special drugs in tuberculosis of the lung, but has employed them with success if the patient happened to suffer from flatulent dyspepsia, and has used an inhalation of equal parts of creosote and carbolic acid to check a troublesome cough. In several cases he has ordered an inhalation of cyllin or an inhalation of oxygen previously passed through a solution of formalin. These inhalants have proved useful when the expectoration has been offensive, but they have not otherwise checked the progress of the disease. For a cough due to irritation of the larynx, relief is often obtained by the inhalation of a mixture of menthol and cocaine dissolved in Friar's balsam and used in a nebulizer, and he usually tries it before resorting to heroin or morphine.

Vomiting is a symptom which sometimes offers difficulty in treatment. The author has often stopped it by prohibiting all food by mouth except milk and water. Sometimes a small dose of opium taken immediately before a meal will prevent vomiting, and occasionally a mixture of oxalate of cerium and carbonate of bismuth will act when other remedies fail.

Hemoptysis is treated by absolute rest in bed and restriction of the diet to 10 ounces of fluid and an equal amount of solid food during the twenty-four hours. A drachm of Epsom salts is also given every hour until the bowels are relieved. In the treatment of hemoptysis no remedy acts as promptly and as effectively as amyl nitrate, a remedy which was introduced by Dr. Francis Hare, of Brisbane. In the treatment of hemoptysis at Kalyra during the last year amyl nitrate had been used on 46 occasions, and in 38 (82 per cent.) of these the hemorrhage ceased either immediately or within one minute. At the North Terrace Consumptive Home amyl nitrite has been used far oftener and with similar success. When a patient has once had hemoptysis the author advises him to carry a bulb of amyl nitrite in his pocket. Very often, though the blood has not yet come into the mouth, a patient knows from a peculiar sensation in his chest that hemorrhage is occurring. If he can recognize this sensation he must lie down immediately and inhale amyl nitrate. Adrenalin is sometimes recommended. It does neither good nor harm, for it is decomposed in the stomach and does not reach the general circulation as such. Morphine is valuable if the hemorrhage is slight, but if it is at all abundant morphine is a dangerous remedy. It has been the author's experience in more than one case of fatal hemorrhage in early consumption, in which the lung appeared to have been flooded with blood, in which symptoms like those of pneumonia supervened, and in which morphine had been freely used, that it would have been better to have used amyl nitrite. Nervousness in these cases is more safely controlled by chloral or bromides than by morphine. When the hemorrhage is subsiding he orders calcium chloride in 10-grain doses as a prophylactic.

Miscellaneous.

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Factors in Catgut Utility.

The successful use of catgut is dependent on several conditions. A little thought will demonstrate that it is the sum of these conditions that essentially determines the degree of resulting success. Like the proverbial chain, the whole utility is limited by the strength of the weakest link. Failure in one detail tends to nullify the efficiency of the rest. Therefore, in using catgut, it should never be forgotten that every collateral factor requires equal consideration and attention in order to obtain the best possible result.

For discussion these various factors may be divided into intrinsic and extrinsic. Briefly stated the intrinsic conditions essential to the successful use of catgut are as follows:

First: Quality. This of course implies that the catgut shall be carefully selected, that it shall be free from foreign substances, of adequate tensile strength, perfectly flexible and properly absorbable.

Second: Sterility. This means freedom from pathogenic organisms as a result of certain careful procedures which aim at thorough elimination, not only of ordinary pyogenic microbes, but also of such bacteria as tetanus and anthrax bacilli. Due attention must also be given in the process of such sterilization to the conservation of the tensile strength, flexibility and proper absorbability of each strand, otherwise, while sterility of the catgut will be obtained, it will be at the sacrifice of its mechanical and physiological utility. Finally, suitable measures must be taken to maintain sterility when it is once obtained, and to prevent every possible chance of subsequent contamination.

The extrinsic conditions which contribute to success or failure in the use of catgut are as follows:

First: Avoidance of infection from extraneous sources at the time of surgical use. This necessarily embraces the whole scheme of operative asepsis, including the surgeon, his instruments, his assistants, the solutions, the condition of the patient's skin and tissues, and finally all the dressings used. In this connection it should be remembered that for several days subsequent to an operation, faulty technique or uncleanliness on the part of the assistants or nurses is a frequent cause of infection.*

Second: Selection of the proper size of catgut for the object desired. It must be apparent that if a strand is too large the absorptive power of the tissues will be taxed beyond safe limits, and, as a consequence, the catgut will present the dangers and irritating tendencies of a foreign body. If the strand is too small, it may be absorbed too rapidly and fail to accomplish proper ligation when used as a ligature or sufficient approximation when used as a suture, with equally disastrous results.

Third: The avoidance of too great tension or constriction. Herein lies the nicety of skillful technique, for the surgeon who uses just tension enough to produce proper coaptation will always obtain better results than the one who draws his suture so tight as to impair capillary circulation with an inevitable tendency toward tissue necrosis.

The foregoing can hardly leave any doubt that the successful use of catgut depends quite as much on conditions presented by the surgeon and the patient as on the inherent qualities of the catgut itself. Hence is emphasized again the great importance of consistent technique in all matters of surgical detail, or to express more specifically concerning the use of catgut sutures and ligatures; while too great care cannot be exercised in their selection

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Apply over the thoracic walls, front, sides and back, and cover with a cotton lined cheese cloth jacket as shown in the illustration.

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Apply over and well beyond the boundaries of the inflammation.

IN ALL CASES ANTIPHLOGISTINE MUST BE APPLIED AT LEAST 1-8 INCH THICK, AS HOT AS THE PATIENT CAN BEAR COMFORTABLY AND BE COVERED WITH A PLENTIFUL SUPPLY OF ABSORBENT COTTON AND A BANDAGE.

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and preparation, equal care should be employed by the surgeon in their application.

At the risk of useless repetition, therefore, every link in the chain of surgical procedure, including not only the quality and sterility of the material used, but also of asepsis, discretion and skillful application must be equally strong, or failure is a logical result.

*The Relation of the Technique of Nurses and of Hospital Apparatus to the Healing of Wounds, by Charles P. Noble, M. D., Annals of Surgery, Sept., 1906, p. 431.

The Necessity for Hematics after Miscarriages.

The more one studies the pathological conditions which follow premature expulsion of a fetus, the more evident it becomes that changes and complications which result from such unnatural termination of a natural process, are little appreciated. There can be little wonder, therefore, that abortions and miscarriages so often give rise to countless female ills, and so frequently lead to lives of more or less chronic invalidism.

Take, for instance, the average case. The whole female organism, as soon as conception takes place, makes preparations to meet the growing demands of the impregnated ovum. The vital processes of both nutrition and elimination are more heavily taxed, and this, of course, means greater activity on the part of the nervous and circulatory systems. Under normal conditions, however, since the female organism is especially designed for the one great purpose, maternity, there is only a modification or increase of function throughout the body. Thus in every sense, in spite of its many complex details, normal pregnancy is purely physiological.

But if for any reason pregnancy is abruptly terminated before the time at which it would normally end, the condition becomes distinctly pathological. Delicate structures, especially those of the generative organs, are suddenly arrested while in a stage of active development, and a retrograde process has to be prematurely established. There naturally follows a marked depression of the whole nervous system, because of its unprepared state for meeting an event unexpected and unnatural. More important than all, however, is the fact that certain growing tissues that would separate normally at the end of pregnancy, in early stages are so closely attached to the uterine wall, that premature delivery always means tearing them away, leaving ragged, lacerated surfaces and an inevitable retention of tissue that because it has no further purpose must be either thrown off or absorbed by the organism. The extreme liability to infection at this time is well-known, and is directly due to the predisposition which attends this invariable presence of dead or dying tissues.

From the foregoing, it must be apparent that the effect of every miscarriage is depressing in character. Every organ cannot fail to feel the pernicious imprint, and there is a logical falling off of every vital process. Because of the formation and absorption of ptomaines and toxins of varying degrees of virulence, there is always more or less vitiation of the blood and disintegration of its corpuscular elements. While the hemolysis may not be extreme, it is generally sufficiently marked to leave no doubt that it is a prominent factor in determining the duration of convalescence and the completeness of recovery.

In regard to treatment it seems hardly necessary to speak of the importance of thorough antisepsis nor of the frequent necessity of removing decaying material. These things are well appreciated by physicians generally. But what should be emphasized is the great importance of vigorous reconstructive treatment after miscarriages, in order to hasten the restoration of normal conditions, with all that this may mean on a woman's whole future health.

Clinical experience has shown that Pepto-Mangan (Gude) has an especial value in these cases, for it not only supplies the urgent needs of the blood, but directly promotes the elimination of ptomaines through the natural channels. The phagocytic process is stimulated, and as a supply of good active blood is produced, the uterus and related organs are vastly helped in their effort to return to normal conditions. Digestion and assimilation are aided and the general vitality re-enforced to a marked degree.

In a word, Pepto-Mangan (Gude) is an unsurpassed tonic wherever there is a lowering of blood quality, from no matter what cause, and the definite positive benefits which follow its administration leave no further recommendation necessary.

Dechlorination in Dropsical Conditions.

Dechlorination (La cure de dechloruration, Widal and Javal, Paris, 1906) has been found to be of service in dropsical conditions due to kidney disease. In cardiac affections, dechlorination is often followed by disappearance of œdema. Here it must be remembered that the dropsical accumulations are caused by the stasis, in the tissues, of salt, which attracts to itself water. When once the power of the heart is restored, chlorides are again well tolerated. Dechlorination has also been employed in ascites, phlegmasia, skin diseases with exudation, and glaucoma.

Practice of dechlorination.—In commencing treatment, the patient should be weighed, and put on a diet containing no added salt. If a purely milk diet be selected, salt is calculated as being present to the extent of 1.6 grm. per litre; an average mixed diet for one day contains only 1.5 grm. of natural salt. Dechlorination and dehydration take place most quickly when the patient is strictly confined to bed. As a rule, progress is steady; but the rapidity with which weight is lost differs widely in individual cases. One patient loses 28 kilos. in seventeen days; another will require six weeks gradually to get rid of.12 or 13 kilos. of water. It is very important to note the exact body weight at which visible œdema disappears. As soon as dehydration is complete and the weight has become stationary, endeavor by giving small quantities of salt to gauge the permeability of the kidneys. Begin with 3 grms. daily, and if the weight does not rise, and if the chloride balance remains in equilibrium, slowly increase. Should the œdema not entirely disappear in spite of dechlorination, drainage, diaphoretics, and diuretics (especially theobromine) should be used.

Composition of a salt-free diet.—Ordinary bread contains from 0.8 to 1 per cent. of salt; it must, therefore, be baked without added salt, and then contains only about

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Modern Missiles and Nerve Lesions.

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and some cases recorded by Major S. F. Freyer, C.M.G., in the Journal of the Royal Army Medical Corps, throw some light on the questions at issue. In three cases in which nerve trunks were exposed by operation not very long after the receipt of the original injury the nerve was found to be not divided, but simply perforated, and that by a missile of much larger caliber than the nerve itself. In each of these cases the nerve examined was replaced in its bed without further interference, and the paralysis which had followed the injury eventually passed away. Although this curious lesion was only observed upon a few occasions Major Freyer surmises that a good many similar cases may have passed through his hands, because these first cases occurred quite early in the war, and owing to the success of the policy of non-interference, he abstained afterwards from attempting to remove by operative measures symptoms of paralysis occurring in cases in which the original wound had healed by first intention. He considers that the great prevalence of nerve complications in the South African as compared with earlier wars was apparent and not real, being due to the fact that in an ordinary Mauser wound which heals by first intention an injured nerve is left behind the other tissues in the race for repairs, with the result that symptoms due to its incompetence come into notice more prominently than would otherwise be the case. As regards the mechanism by which it becomes possible for a clean hole to be drilled through a nerve by a body larger than itself, Major Freyer suggests that the former may either spread out like a ribbon on impact of the bullet, or be split longitudinally; he inclines, however, to the former belief. Another observation which he makes is that the paralysis following a Mauser bullet wound which has healed by first intention is never complete. He saw no case in which some part or other of the nerve below the lesion did not retain its normal function. The direct evidence of the possibility of a perforating lesion of a small nerve trunk which the cases narrated by Major Freyer supply is of decided interest. In what proportion such lesions occur it is impossible to say, but the supposition that they occur frequently would seem preferable to theories of nerve "concussion" sometimes pressed into service in order to account for symptoms obviously not due to a gross lesion such as total division of a nerve. The theory of concussion has never been very satisfactory from the point of view of physiology as applied to a nerve trunk, however defensible it may be in the case of a nerve center. Major Freyer draws attention also indirectly to the distinction which should be made between nerve lesions due to wounds which have healed by first intention and those which persist after the termination of septic processes. It may likewise be suggested that the distance from which a wound has been received is also probably of importance, and that information on this point should if possible be supplied by all those who cite cases in the course of attempts to clear up the pathology of a very interesting class of injury.—British Medical Journal.

Rheumatism, its Pathogenesis and Treatment.

Albert Robin recently presented to the French Academy an original work by Penieres bearing the above title. This writer believes that rheumatism is due to autointoxication provoked by the introduction into the blood of a toxin, a ferment analogous to the fibrin-ferment of coagulated blood studied and isolated by Schmidt. He thinks that this ferment is eliminated by the urine as it is formed, just as are other toxins contained in the normal urine. Thanks to this elimination, the organism does not suffer from the absorption of the poison. But when a lesion develops in the mucosa of the genito-urinary apparatus, the rheumatic poison shows its effect on the individual because it is absorbed and enters the blood. If the epithelium of the urinary passages which serves as a defense to the organism against urinary poison is eroded, the way is opened for absorption of the poison and autointoxication follows. The writer calls attention to the fact that various affections of the genito-urinary system, such as ureteritis and cystitis, are the forerunners of rheumatism. This new conception of the disease opens up fresh lines of therapy. The lost epithelium must be renewed and the elimination of the toxins must be favored. The writer makes use of mild and easily digestible antiseptics that he has discovered in the resins of cubebs and juniper. In this work are cited observations of patients with rheumatism of various types treated successfully by this new method.—La Tribune Medicale.

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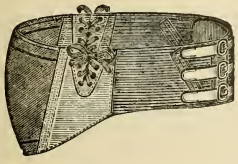

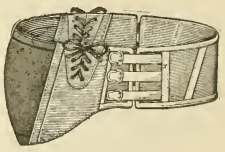

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The Drug Habit: Its Dangers and Its Dupes.*

By F. M. Winchester, M. D., Charlotte, N. C.

MR. PRESIDENT AND GENTLEMEN:—

In selecting my subject it is not my purpose to go into a detailed description or a profound analysis of the many symptoms and conditions which enter into the "morphine habit" and constitute the condition known as morphinism or morphino-mania. We all know what most of them are and see many "horrible examples" of that condition every day. I simply wish to call attention to some of the mistakes that have been made in the past and are being made today in regard to this condition and its treatment, and to call attention to some crude ideas of my own, as well as some I have culled from various sources, by which we may hope to get better results in the management and treatment of this—one of the most troublesome of all diseases—for it is a disease, and the sooner we learn to look upon it as such, rather than as a vicious habit, the sooner can we hope for satisfactory results in its treatment.

As to its causes: they are so many and various that to attempt even to enumerate them would be folly. Any acute disease which necessitates the administration of a single dose of morphine may vivify a dormant thirst, and its administration in chronic maladies is always positively dangerous.

I hope I do no one an injustice when I say that the odium of being responsible for a very large per cent. of the morphinism of today is merited by the medical profession.

Taking no account of those "weaklings" among our brethren who are narrow-minded enough to try to curry the favor and win the good will of their patrons by the indiscriminate administration of this dangerous drug for the relief of every little ache or pain complained of,—a very unscientific, dangerous and *sinful* practice, which often brings unmerited odium on more honest members of our profession,—and cannot be too strongly condemned. I say taking no account of these, yet every physician knows how necessary it is in some cases to give morphine; and how sometimes, even for long periods, it seems impossible to find a substitute for it. Yet the dread of the formation of "the habit" is ever present with us.

In this connection I would like to mention a little expedient that I have found useful; and which I called attention to some years ago in a little paper read before our local Medical Society. And that is the administration of Hyoscine Hydrobom in combination with morphine as a preventive measure. In my opinion, Hyoscine is in no ssnse either a substitute or a cure for the morphine habit; but used as an adjunct to morphine I am convinced that I have gotten good results, in that I have been able to reduce the amount of morphine required at least by half, and to continue its use when necessary a great deal longer, with comparatively little danger of the formation of "a habit." In fact, I am positive that I have not caused a case of morphinism since I began using this combination.

A moment's thought, it seems to me, would convince any one that this combination is both logical and physiological. If a patient needs both a pain-reliever and a sleep-producer it meets the requirements fully. As a pain-reliever nothing equals morphine, as a sleep-producer nothing is better than hyoscine hydrobrom.

This combination works admirably in a great many conditions, and when the two are given together they seem to increase each other's power; thus requiring a smaller dose of each than when given separately. Nearly every one who has pain so severe as to require morphine would be benefited by some sleep. Hence, why not give both relief from pain and sleep by the administration of a smaller dose of each drug, and at the same time prevent the formation of the morphine habit?

Now, as to the "dupes" of this pernicious disease or habit: To my mind the "drug addict," or dope-fiend," while he is a dupe is by no means the only 'dupe" discoverable in the premises. To the "man outside," looking on with a calm, dispassionate gaze, the doctor who says he cures these habitues is quite often as badly duped, and as totally warped in his mentality as the habitues themselues. Leaving out of consideration those gentlemen who make it a business to cure morphino-maniacs (at so much per maniac—fees strictly in advance) there are many estimable gentlemen who believe they can and do cure such cases; who are yet woefully mistaken as they find later on, or if they do not the patient does. The reason for this failure is not hard to find. They start out with a wrong conception of the situation and try to substitute for the craving for one drug the effect of another. A recent writer has pointed out the failure

*Read before the North Carolina Medical Society at its meeting in Charlotte, N. C.

which followed the announcement of Mercke that codeine was a remedy for the morphine habit. The physician who liked to cure such cases jumped at the new remedy and rejoiced when he sent his patient home, using no morphine it is true, but with the codeine habit fast upon him. Others tried heroin with like results.

Today the great mistake is being made of paralyzing men with hyoscine, so that they do not feel the craving for morphine. The morphine then is withdrawn "in toto," and after a week or two without it the patient, buoyed up by tonics and still half hypnotized by the hyoscine, is discharged, only to relapse after a time into the old rut.

Divesting the subject of all the twaddle that has been thrown around it, considering it as we would any other morbid condition, we find that there has been little attempt, if any, ever made to treat the craving at all; which is tantamount to saying that there has really been no systematic treatment of the morphine habit. Where we attempt to analyze and to disassociate the different factors of the miserable wretchedness known as the morphine craving, and to discover in them some indications for treatment, as we would in other diseased conditions, then it soon becomes evident that to attempt a cure for the craving by any "special hard and fast method," or by any so-called specific medicine, be it a double or triple chloride, or strychnine, heroin, codeine, hyoscine, or what not, is an absolute absurdity. The whole question of treatment, upon which the management of the whole case depends, is that of the possibility of alleviating and rendering bearable this craving. A careful analysis of this craving will show that it may be looked upon as the result of a number of component distresses; each capable of being split up into factors susceptible of entire or partial relief.

The morphine addict is semi-paralyzed. That is to say, sensation, function and mentality are benumbed. Excretion, secretion,—every vital process is retarded. Not to go into the minutea of the changes which do undoubtedly take place in cell structure and cell life, perhaps the heart depression, the hyperacidity and nervous irritability may be noted as some of the more important factors, though the man who uses morphine has every organ of his body narcotised to a certain extent after taking his dose. Then as the effect passed off and the natural processes recommenced he feels discomfort and hastens to take more of the deadening drug. After a time anything approaching the normal activity of any organ or function strikes him as abnormal and painful; and for this reason he suffers when the drug is stopped. As is natural, after a time the system adjusts itself to the new condition of things and works only under the influence of the drug, and at half speed, so to speak. Then when the effect of the last dose wears off everything goes wrong and the paralyzed nerves, both motor and sensory, refuse to control or to be controlled. Give another dose and the victim returns to a state of comparative well-being. Naturally all this time the secretions have all been dammed back—excretion being stopped, and the minute this unnatural balance is disturbed these are absorbed and we have toxaemic symptoms in a greater or less degree.

Now to stupefy such a patient with one narcotic in order to withdraw another from his system is childish, when you really think the matter over. "But "*they* say" we only do this while we eliminate"—but *I* say, how can you eliminate when the system is under the influence of *any* narcotic? And how can you guarantee that when the effects of the drug with which you have saturated his system have worn off, he will not still require some agent to so benumb his faculties that he will not be uncomfortably aware of the ordinary life processes?

This then, in brief, is the position of the drug addict. He has so long benumbed his senses that he can only tolerate the perfectly natural processes when half unconscious. He lives in a state of semi-anaesthesia. Withdraw the drug, and digestion, circulation, peristalsis, secretion, and excretion, one and all, are almost as disagreeable to him as the knife of the surgeon is to the patient awakened from his ether sleep.

There is just one safe and really sure method of rectifying the damage—clean out the system thoroughly and see that each vital function is being carried on normally, or as near normally as possible; and at the same time with infinite care and patience reduce the amount of the drug and remove its effect from the system until the victim is able to bear the sensation of living.

Whether this be done slowly or suddenly, by the "gradual reduction" or the "immediate withdrawal method" depends largely on the circumstances and surroundings of the patient, on the history of the case, and more especially on the physiologic and psycologic condition and personal idiosyncrasies of the patient. The time element anyhow is only *one* of the minor conditions of the treatment. And while I am convinced that the "sudden withdrawal" or "semi-bruske" method may prove successful in a certain per cent. of cases, yet it is often done at the expense of greater suffering, and my observation is that such patients are much more liable to relapses. For these

and other reasons my preference is in the great majority of cases and under ordinary circumstances for what is known as the "gradual withdrawal method."

The last dose is always the most difficult. The mentality of the patient has suffered almost as much as his physical system. The mere knowledge of the fact that he has not had morphine will cause him to suffer mentally, and this suffering will soon assume such proportions that he will make any sacrifice or sell his wife, his child, his very soul for one dose of the drug. Hence, never let the patient know when he takes his last dose. Give as little as possible, but let him think he *can* get more if he needs it. Substitute codeine for morphine towards the end, and heroin for codeine later still, all the time eliminating stimulating digestion and sustaining circulation and nerve force. The dosage of each opium salt steadily reduced until practically "nil." Then after from three or four days to a week without any having been given, tell the patient that he is practically free and that you will only give him a dose if he absolutely needs it and asks for it. If he is any kind of a man he will not ask, unless his mentality makes him suffer. Then in place of the opiate give a dose of strychnine and phosphorus, or if a hypodermic is called for give strychnine alone. The chief difficulty is to really clean out the system without further debilitating an already debilitated patient. This must be done, however, and at the same time the stomach, heart, nerve system and brain will each need its appropriate attention.

There are several classes of patients who present themselves for treatment for this dread disease. 1st. Those who are really anxious to get well. It might be supposed that the mere fact of a person consenting to begin treatment might be considered as "prima facia" evidence of a real desire to get well. Such is not the case, however. A great many patients begin treatment under pressure of friends or relatives, or in alarm at certain menacing symptoms, who have no real desire to get well, and who as soon as a slight reduction in dose has led to an abatement of the alarming symptoms find the restraint irksome, and their good resolutions are thrown to the wind.

Besides these two classes—i.e., those who want to get well if their cravings could be moderated sufficiently or entirely, and those who do not intend to do so—there is an intermediate class—those who do want to get well and have no *real* craving which prevents them, but who suffer from a hysterical or neurasthenic craving. It is in these cases that great tact is necessary and great experience more especially requisite.

Such patients should never know how much morphine they are taking, or what other drugs are being administered. And as the symptoms, though really distressing, are entirely ideal, ideal treatment should be adopted. It must be borne in mind that the morphine habitues are a class of patients *sui generis*. With all the sympathy we may feel for them, we must not forget the fact that they are "prevaricators" by impulse as well as through motives of interest. Such patients acquiesce in all the requirements; but with the mental reservation of doing as they please. Such patients are often very misleading, and more than one physician has been led to believe that some particular remedy has been of great service; when in truth the patient has only been pretending in order to get through the farce of treatment as soon as possible. Strange as it may seem, it is none the less true that a morphine patient will often pretend that he is cured rather than hurt the feelings of the doctor who has unsuccessfully treated him; or own that they themselves have cheated or been guilty of an imprudence that has thrown them back.

Now how to manage these various classes of patients leads us to consider first the vital question of restraint. Can we treat such patients at their homes? Or is it necessary that they be placed under absolute restraint?

In the first class of cases, viz.; those who present no bar to recovery in either their mental or physical condition, and who are personally anxious to be cured, it is possible to effect a certain per cent. of cures in their homes. But as a rule it is seldom advisable to make the attempt.

If a patient be treated in his own home he must consent to remain a prisoner in it; going out only with reliable company and receiving no letters or parcels that are not opened in the presence of an attendant.

But even with every one of these conditions fulfilled I believe a change of surroundings is preferable, as morphine habitues are, as a rule, far more reasonable with strangers than with members of their own family, whom they tyranize over from force of habit. The difficulty is to find a suitable "Home" where only a few patients of the kind are taken, the fewer the better. In Sanitoria or "Homes," whether with restraint or not, as a rule there are too many people under treatment at the same time to allow the amount of individual attention that is needed in order to get the best results, besides the association seldom brings about an emulation for good.

To sum up then, we should select the best sanatarium or home available, then separate our patient from the surroundings he has been accustomed to play the tyrant

in and insist that he submit *with resignation* to be rationed and supervised. To this end not *absolute restraint*, but rather voluntary and careful restriction is necessary. The chief reason against absolute restraint is that our ultimate aim is not so much the temporary suppression of the morphine *as the cure of the desire for it;* and the best way of effecting this is by the re-education of the dormant will.

Hence, it is best to leave our patient in control of what will power he may have left. Let him understand that he is at liberty to do what he will, within certain limits, but that while under treatment he is to render an account of what he does.

I do not mean by this that he is to carry about an unlimited quantity of morphine and take it when he will. On the contrary, he should have none, the doctor giving each dose himself. But the patient should be made to feel that he can have more by asking for it. In other words, leave him to exercise his will, so that it may grow and strengthen with his strength and then carefully guide it into a proper channel.

Another condition of perhaps equal importance is the adoption of a proper method, not only of administering medicines, but also of general conduct; convince the patient that if the treatment is to be successful it is only on condition of the greatest docility in matters of detail.

Nothing is so distasteful to a morphine patient as method and order; yet these are absolute conditions of success, and a great step has already been taken when a patient has acquired this conviction.

Many patients will consent at once to the program of reduction as regards quantity, but when it comes to fixing hours for administration will declare that no fixed rules can be adopted in their particular case, because their requirements vary with circumstances. They may be entitled to a dose when they do not need it, and on the other hand they may be in want of the drug when not entitled to it. The reasoning is plausible; but it is essential notwithstanding to insist on regular hours, as method is paramount and laxity at first invariably leads to ultimate irregularity. The patient must also understand that as regards diet, he must take light digestible meals like any other convalescent at regular hours. Regularity as regards medicine, regularity in respect to meals, and last, but by no means least, regularity as regards repose.

Whether sleep come or not, the light should be extinguished as soon as the last dose is taken and reading in bed strictly forbidden.

I go thus into detail in regard to surrounding mode of life, method, regularity, diet, sleep, &c., because in the first place I am convinced that many a patient has failed to be cured for lack of attention to these, that might erroneously be considered minor details; and in the second place I am satisfied that there is as yet no specific for this disease, and no hard and fast rules of medical treatment will hold good in any two cases; but each case must be studied and treated on its own merits.

To do this requires the constant care of an acute diagnostician, an excellent therapeutist, and a tender-hearted, but firm and conscientious physician, who must possess moreover a personal magnetism of no mean order.

In the hands of such a man, who is familiar with the general scheme outlined, and who will conduct the case along the general lines indicated, only varying them judiciously to meet individual temperaments and idiosyncrasies, I am sure the details of medical treatment may be safely left. And I do not hesitate to assert that, provided the patient will allow himself to be protected against temptation, the morphine habit may be given up without positive suffering and the amount of restlessness and discomfort reduced to that experienced upon the cessation of any other stimulant.

Why is It?

By J. A. Reagan, A. M., M. D., Weaverville, N. C.

I have taken and read the Journal of the American Medical Association from its first number to the present, besides the Review and other medical journals, and attended the meeting of the medical association when I could; and I have no disposition to criticise or complain, but I have wondered why there has been so little notice paid to the physicians of North Carolina in making up the officers and the different sections.

There are twelve sections with about six members, not including the officers, and not a single man from our State. It is true that at one time our State was called in derision Rip Van Winkle by some wise acres. Perhaps they or their descendants still look upon us as being so far behind and ignorant that we are not to be ranked with those of great cities, yet we have had four Presidents of the United States born here; Jackson, Polk, Johnson, and Lincoln, whose father was Enloe, and his mother Nancy Hanks, besides two Bishops, and a number of Governors and Senators from other States, who were born and educated in this State. We were the first State to pass, by the Legislature, an act requiring all men who desire to practice medicine in the State to go before a Medical Examining Board before entering the practice of medi-

cine. Now all the States have examining boards. Asheville (Buncombe Medical Society) was the first to have city council pass a law against spitting on sidewalks, in street cars, and public houses, and now many cities have such ordinances. We have four medical colleges with competent faculties and many physicians who know something, but do not put themselves forward, as some others who know less, or preferring to let their work recommend them—they don't have *drummers* as some have in places.

So far as I am individually concerned, I make no plea for myself, as I am now too old to desire any promotion in any of the medical societies, having passed my eighty-second birthday, having been born in 1824, but my plea is for the younger, well qualified, and moral physicians of the State. If I were a young man I would not write this, but I know there are a number of physicians under sixty who are worthy and well qualified in this State, can stand in knowledge and usefulness equal to men from the north, west or east.

I have not been requested to write this, nor has any physician seen the manuscript. But before I go hence to be no more with the different medical societies I make this plea for worthy physicians of our State. The slur passed upon North Carolina by calling her Rip Van Winkle should be stopped, as other States are as much entitled to it as the old North State. We have as few quacks as many other States have, and when they come the Medical Examining Board soon finds them out. Looking over the Journal of the American Medical Association for December 27, 1906, the general officers, the Board of Trustees, Judicial Council, the twelve sections, Council on Medical Education, Council of Pharmacy and Chemistry, making in all one hundred and forty-two, and in all that number there is not a single North Carolinian—hence I ask "why is it?"

Antitubercular Lymph Compound: A Contribution to the Organo-therapeutic Treatment of Tuberculosis.

By Dr. Gilliford B. Sweeny, 4 Square de la Four, Manbourg, Paris.

My belief that I have found within the domain of organo-therapy a remedy for tuberculosis is my only apology for presenting this article. I ask of the medical profession a patient hearing, and that those who may not be convinced of the merits of this remedy will at least withhold their judgment until time, the great adjudicator, shall have determined what degree of recognition it is entitled to.

It is necessary that I make certain preliminary statements relating to tuberculosis before describing the nature and physiological action of this remedy which I have called Antitubercular Lymph Compound.

Tuberculosis is essentially a disease dependent upon impaired nutrition. It is readily transmissible but is not contagious in the sense in which the term contagion is generally used. There is nothing connected with the clinical history of tuberculosis to indicate that one who is in perfect health is impressionable to the disease. Through the transmission of certain physical characteristics which often indicate an inherited tendency, it has been inferred that the disease is hereditary, but there is a lack of evidence to show that the tubercular germ itself is handed down from generation to generation. The strongest defense that can be erected against tubercular infection is a normal physical organism.

This may seem to be an unimportant and common-place statement, but statistics show that where one person falls a victim of the White Plague, six persons escape it, and careful investigation has proved that those six persons who escaped were in vastly better physical condition when exposed to the tubercular poison than was the one who become infected.

We are here confronted by a very important question: What is health? Health is a normal state. When the body is healthy every organ performs its function easily and without any assistance or stimulation. A healthy condition of the body is nature's own bulwark against the invasion of disease. It is only when the inherent bodily vigor becomes impaired, when the powers of resistance are reduced to a minimum, that disease invades the body.

When the tubercular bacilli enter the circulatory system they immediately encounter opposition from the phagocytes, the warriors of the blood. The outcome of this conflict will depend entirely upon the vigor of the phagocytes, which in any event proceed to wage war upon the tubercular bacilli. When in a healthy condition they ingest the tubercular bacilli with avidity and disintegrate them with surprising promptitude. But when the phagocytes are lacking in vigor, quite a different phenomenon is observed. The tubercular bacilli multiply very rapidly and are but little molested by the phagocytes, and even when ingested by them proceed to multiply rapidly, frequently engorging the phagocyte to such a degree as to cause its rupture.

It is obvious that the real battle ground is where the blood cells and the tubercular bacilli first meet. Success or defeat, immunity or infection, depend upon the issue

of this engagement.

The therapy of tuberculosis up to the present time has been aptly characterized as Dead Sea fruit, which has turned to ashes in the hands of both physician and patient. In a recent authoritative work upon therapeutics, some two hundred and forty different drugs and plans of treatment are extolled for tuberculosis, each receiving its meed of praise, from the tar-water of Bishop Berkely to the inflation of the rectum of the hopeless victim with sulphuretted hydrogen gas.

It is this wearisome *reductio ad absurdum* which has caused the ablest students of tuberculosis and intelligent physicians alike to abandon drugs and proclaim the saving grace of fresh air, food, sunlight, rest and baths. But these measures are only the necessary and elementary conditions of hygienic living, indispensible for well and sick alike. They are not remedies in any true sense and urging them with such clamor and insistence as is now done is a virtual admission that the best that medical science can do today for the tubercular patient is to place him in as favorable a situation as possible for his single-handed and unequal struggle with his formidable disease and then leave him to his fate. It is true that a certain number of patients recover, but the issue in every instance depends in the last analysis upon the combative power of the individual patient, and is but little influenced by any direct remedial measures hitherto employed.

We must come to recognize impaired digestion, faulty assimilation and elimination as integral parts of the morbid process. For this reason remedies have been used in the treatment of tuberculosis which, had they been properly appropriated by the organs of nutrition, could not have failed to contribute to the patients recovery, and yet their administration was followed by no beneficial results. Such discouragements naturally lead one to look for a new route by which to reach the beleaguered citadel, the blood current and its defenders, the phagocytes.

After considering the nature and characteristics of tubercular infection, I am prepared to announce the following propositions: Tubercular infection takes place in the human subject only when the ratio of resistance has been disturbed by some influence extraneous to the tubercular process. This disturbance of the ratio of resistance can occur in but one way, viz: by impairing the vigor of the phagocyte. Successful treatment of tuberculosis must have for its object the re-invigoration of the phagocyte.

It will naturally be inferred from the above statement that I am a defender of the doctrine of phagocytic defense, a doctrine which has been so ably expounded by my friend and teacher, Prof. Elie Metchnikoff; nor shall I deny such accusation, for to my mind this illustrious scientist has made his ideas and statements upon this subject so clear that no unbiased person can regard them as untenable. That the blood serum is, under certain circumstances, possessed of antitoxic and remedial properties, I will not deny, but whatever of such properties it may possess will be found to have been elaborated by the phagocytes and to have passed from them into the blood serum. Some six years ago, having become discouraged by the results obtained by what was then regarded the orthodox remedies in tuberculosis, I turned my attention to a new field, that of organo-therapy, with the hope of finding some remedy worthy of attention. What I have now to offer to the profession is the result of those six years of constant study and observation.

This remedy which I have called Antitubercular Lymph Compound is composed of the following ingredients: From the bullock which has been proven immune to tuberculosis is taken the contents of the thoracic duct. This lymph is removed under the strictest antiseptic precautions, and is collected as soon as life is extinct and before the temperature of the body of the animal has been lowered. It is then placed in an hermetically sealed jar to await the addition of the other ingredients. From the brain and spinal cord of the same animal, and observing the same antiseptic precautions, the grey matter is removed and immediately subjected to protracted trituration after being freed from all fatty and fibrous tissue. Following thorough sterilization, the extract which has been obtained is added to the lymph already collected from the thoracic duct. Next is taken the spermatic fluid derived from the vas deferens and epididymis containing an abundance of spermatozoa. And finally, a limited amount of chloride of gold and soda (1-60 gr. to each dose). The latter is used chiefly as a preservative. The resulting compound is again subjected to thorough sterilization. It is then hermetically sealed until wanted for use.

The preparation will keep in any climate when not subjected to a temperature above 100 degrees or below 30 degrees Fahr. The remedial qualities of the Lymph Compound are referable to several different properties which it possesses.

First, we have the immunizing action of the lymphocyte, which directly antagonizes the tubercular bacillus.

Secondly, there is exerted an antitoxic

influence, which addresses itself to all forms of germ life which have invaded the organism and which may be operating independently or in conjunction with the tubercular bacillus.

And finally, we have the effects of a powerful cell tonic, alterative, and reconstructive.

The results obtained from the administration of Antitubercular Lymph Compound assure me that we have here an ideal agent with which to combat all forms of tuberculosis. Even in those cases where there has been no opportunity to identify the tubercular bacillus no ill results can follow its administration, as in the non-tubercular it acts only as a tonic, alterative, and reconstructive.

The Lymph Compound is administered by hypodermic, or strictly speaking, intramuscular injections, all-glass syringes being used for this purpose. Any part of the body where muscular tissue is abundant may be selected as the site for injection, but the subscapular region is to be preferred. Practically no pain is inflicted by these injections, and no abscess or other unpleasant effect follows their use. Ordinary antiseptic precautions should be observed in preparing the field of operation, and subsequent massage with the hand or vibrator will prevent any local discomfort.

Injections should be given every second day, daily or twice a day, according to the exigencies of the case. No unpleasant reaction is experienced after injections. Sometimes a slight suffusion of the face or congestive sensation in the head is observed. Such reaction is indicative of prompt absorption of the Lymph.

The therapeutic indications for the administration of Antitubercular Lymph Compound cover every form of tubercular infection, whether acute, subacute, or chronic. I have asked my confreres who have rendered me invaluable assistance in clinically demonstrating the medical properties of the Lymph to avoid administering it to patients who were already in an obviously hopeless condition.

I again make this appeal to the profession at large. If the Lymph Compound were a miracle-worker, which it is not claimed to be, it would be obviously unwise to administer it in a case so far advanced that only a fractional part of the pulmonary tissue remained intact. Any thoughtful physician will agree that such patient, even though entirely freed from the tubercular process, could never be better than a helpless asthmatic invalid.

I again reiterate this request to the profession at large; do not use Antitubercular Lymph Compound "as a last resort," or if you use it under such circumstances and it too fails, as it most probably will, do not condemn it forthwith because it has failed to do at the last hour what you and your older remedies were not able to do while the patient was in the early stages of his disease.

I do not propose to burden the profession at this time with a formidable array of statistics upon the results obtained following the administration of Antitubercular Lymph Compound by myself and those who have so kindly aided me in my work. These statistics have been carefully compiled and preserved and are available to all who are interested in their investigation. It is sufficient for the purposes of this paper to state that of the first six hundred cases treated with the Antitubercular Lymph Compound 68 per cent. were reported as cured.

The term "cured" being understood to mean "freed from tubercular infection." For obvious reasons an even higher percentage has been found to be relieved of all symptoms referable to the tubercular poison.

In all of the above six hundred cases the presence of the tubercular bacillus was determined before the treatment was begun, and the average period of treatment was fifty-six days.

If this remedy proves itself worthy of a place among the valuable medicinal agents which organo-therapy has contributed to our armamentarium within the past few years, I shall feel that my work has not been in vain.

Drainage and Dressings.*

By Dr. H. S. Lott, Winston-Salem, N. C.

Simple, direct methods in surgery accomplish most. The men who have achieved greatest success, life-saving success, have realized this fact, and adopted such methods.

Two main points should always lead the surgeon: first, recognize a focus for attack, —and,—second, reach this focus,—promptly,— remove it, if its removal is possible, —and stop! The blind seeking for something which may, or may not, exist, prolongs the anaesthesia, and taxes, unduly, the vitality of the patient.

Most especially in abdominal surgery should this fact be borne in mind; for 'tis here that symptoms are most obscure and misleading, and that the temptation is greatest to locate the focus,—and establish the diagnosis, after the incision is made. In yielding to this temptation, the surgeon not only blunts his own sensibilties, but also obstructs the path of progress toward that refinement of diagnostic skill, which should ever be his aim. Furthermore, before mak-

*Read before the Forsyth County Medical Society, at the November meeting, Winston-Salem, N. C.

ing the incision, or at least before completing the incision, it should be determined, so far as it is possible, will the case be one for drainage,—or will it not?

Drainage, in the surgery of today, is a life-saving element. The peritoneum is the surgeon's friend, but even friendship should not be abused, and when its surfaces, even in small areas, have been ever so slightly soiled, a tiny wick, to lead filth from this point, gives our patient a better chance, and ourselves a better conscience. And if the case should be one with pus, and the extensive freeing of adhesions, then the simple and ample straight incision, with an abundance of drainage, and the "wide open game" afterward is, beyond a doubt, the best one to be played.

Drainage, therefore, and its distribution is not a chance and haphazard procedure; but an essential and a life-saving one. In the field of general surgery a simple, clean, gauze wick after an amputation will lead out the effused blood and serum, which is sure to come within the first twenty-four hours, and which, but for this wick, must remain and await resorption.

Within the pelvic and abdominal cavities drainage, and its proper and effective distribution, is most essential in about all conditions urgently demanding surgical intervention, and the manner of its placing indicates the skill and wisdom of the surgeon, equally with any other feature of the operation. For instance, in pus cases of appendicitis the want of drainage is the want which both demands and justifies the operation. After finding and removing the appendix all points for the possible accumulation of filth should be sought, free vent established for its egress, and a gauze wick carried to the remotest point of its travel. Thus gauze wicks may be placed between coils of intestine, between omentum and intestine, even to the opposite side of the abdominal cavity, and to the floor of the pelvis; and unless it is done, and this filth given an outlet, we have done very little for our patient. In some cases, about as bad as pus cases could be, and after removing a very large part of the omentum, I have carried good sized wicks entirely across the abdomen, well up under the lower border of the liver, and well down into the pelvis; and once, in a case which I remember very well, this distribution, in all three directions, was necessary, and while, at the time, it looked very much like invading foreign territory, I believe that it contributed very largely to saving the life of the patient. Therefore, in pus cases, where it is of such vital importance, there is very little danger of putting in too much drainage, carefully placed; and I firmly believe that the danger is far greater of putting in too little.

In the placing of drainage, the order of entrance to the abdominal cavity should be reversed. For instance, with the topography of the region well in mind, we pass two fingers through the abdominal incision, and working from a given point carefully and systematically seek in all directions, even to the cavity's remotest limit, for the focus demanding repair; this point once located, our efforts will be restricted to its limit, and their results will be far more effective.

Having accomplished our object, and bearing well in mind the planes of cleavage which have led us to this point, our wicks for drainage should be placed reversely, from within out; all seeking and making exit at the most dependent points of the primary, straight incision; and the direction of each well borne in mind for future reference. It is the "little things" in life that count; and I know of no condition in which care and precision are better worth the while, or will give happier results, than in the placing of drainage in pus cases of appendicitis.

The after care of these cases is a matter of very great importance, and I fear that it is one about which we hear too little by prominent operators. Dressings, and their proper doing, are of equal importance with the primary operation. With just what was done at the operation, and the distribution of our drainage well in mind, the plan of each dressing may be pretty well outlined beforehand.

This saves time, and, as patients look forward to dressings with a great deal of dread, they should be done as gently and as quickly as possible.

Each dressing should be done with strictly aseptic preparation, both of the dresser and of the material used; not with the parade and display of a bantam cock on fair day, but with simple, thorough cleanliness. In bad cases, left open; where the drainage is good, and we have a wet patient and a wet bed within twenty-four hours, the dressing should be changed at the end of that time. This is done simply for the sake of comfort and cleanliness, and the wicks are not disturbed at all. After forty-eight hours very gentle traction may be made upon the wicks; bearing well in mind the direction of each. No force should be used at this time, just the weight of the hand being sufficient, and the patient should be given as little pain as possible; although the giving of some pain is unavoidable.

Wicks well distributed in such cases should be largely left to loosen themselves; and there should be no hurry about their removal; the danger of removing them too soon, and by force, being much greater

than that of leaving them in until they are well loosened, and the bowel wall, with its tendency to slough, has regained its normal tone; and this cannot be safely counted upon until ten days or two weeks have elapsed.

As to the use of irrigation in these wide open cases, I have used it, and I have dressed them to a closure without its use. That the irrigation destroys some granulations, and that the filling in is done more slowly by its use, is very true; but there are filthy cases in which I believe that it is best; and in return for the delay, and the longer period in bed, the patient gets a much more firm cicatrix, with less likelihood of a hernia afterward.

The application of the bandage, in the after care of drained abdominal cases, is a very important feature. This bandage affords protection to the abdominal wall, preventing undue laxity of its muscles, and favoring firm union where the incision is made.

The many-tailed bandage is the best one to be used; because it can be adapted more snugly to the irregular outlines of the abdomen and pelvis, and will stay in place with more certainty. In putting on the bandage it is best to have an assistant on the opposite side of the patient, and, with each tail drawn taught, make the laps always from above down, with the final one straight across the prominence of the hips. These laps should be drawn as tight as the dressings beneath, and the comfort of the patient will allow, and made secure by a good sized safety pin just within each iliac crest, and a line of them up the center of the abdomen, just where the cross is made.

No two cases can be dressed exactly alike; the nature of the condition at the time of operation, and the distribution of the drainage, will separately govern each one. But the principle underlying all, and the object in view, of helping in a natural process, are always the same:—the doing of just enough, and doing this with safety, demanding thought, cleanliness, and precision.

134 South Cherry St.

Empirics and Empiricism.

By H. C. Buck, M. D., Friars Point, Mississippi.

The question is, what is empiricism? Are not all physicians empirics to some extent? Webster says "An empiric is one who confines himself to applying the results of mere experience,"—"one who deviates from the rules of science and regular practice." He says "Empiricism is the philosophical theory which attributes all our knowledge to experience."

In every medical journal we read of new remedies that are recommended for *all* the ills of humanity. Their name is legion. No man can remember half of them, nor does he care to do so; but how many busy doctors are there who stop to study the science as applied to *all* the remedies he may use? And how many of us often find medicines possessing curative properties that are not applied to them by science? And we only learn these facts by observation and experience. If a brother physician in whom we have confidence tells us his experience has taught him that a certain remedy will meet certain pathological conditions and effect a cure, nine out of ten of us will use the remedy on the doctor's endorsement; indeed, we would be foolish not to do so.

I learned many years ago that the Fld. Ext. Eucalyptus is most excellent in malarial fever of infants when the little one has a weak stomach and is of a nervous temperament, and where quinine seemingly ruins the stomach and nerves. In such cases I have had excellent results, and won the gratitude of anxious and tired mothers by giving the little one 6 drops of Fld. Ext. Eucalyptus in a little water every three hours, also giving one or two drops of Fld. Ext. Gilsemium with eight or ten drops of Sweet Spts. Nitre in water half way between each dose of Eucalyptus until temperature is normal, then stop Gilsemium and Nitre, and rub the child every three or four hours with quinine dissolved in warm whiskey. This is empiricism, because it is founded on mere experience and is contrary to the teachings of authorities. In Foster's Practical Therapeutics, page 118, we find, "Eucalyptus was at one time highly esteemed in the treatment of malarial fever and though further experience with it has proved it to be void of specific antiperiodic power" and on page 417 he says in regard to Gilsemium, "Some writers prize it for use in malarial fever as an adjuvant to quinine, and the remedy owes its introduction to its empirical employment in the malarial fevers of our own Southern States." I know and very many other Southern physicians know Gilsemium is a most excellent remedy in its proper place. So far as I am concerned I am free to admit that I use it empirically.

Many years ago, before I learned there was such a thing as Ingluvin, I had a patient suffering fearfully with irritable stomach. Nothing seemingly did the least good, (this was before the hypodermic syringe come in use) finally an old negro woman suggested that I try "chicken gizzard tea." I did so, and was surprised and gratified with the result. My patient was relieved almost instantly. I did not know, nor did I care, what peculiar properties the "tea"

possessed. I *saw* that it relieved my patient and I was satisfied. Long years ago I knew an "old country doctor" who was not educated in medicine or anything else, "just took up" the practice, but he was more successful in treating pneumonia than any man I have ever known. His routine practice was to clean out the whole intestinal tract with a purgative, usually calomel and rhubarb, then give Tart Emetic and Powd. Bloodroot dissolved in water, in doses sufficient to produce slight nausea and at intervals to hold effect. When I asked him why he used the tart emetic and bloodroot he looked surprised that any one would be fool enough to ask such a question, and replied, "why, damn it, because it does good."

I do not know where I learned that molasses will cleanse a sore of maggots, nor do I know why it does it, but experience has demonstrated the fact that it does. Several years ago I had charge of a case of confluent small pox; the weather was very warm (in July) and the patient (a negro man) was naked, with only a shirt to cover him. He was in an old house and in charge of a negro man hired to attend to him. One day the attendant told me the patient was in a "bad fix." He said "Doctor, make him uncover himself." I did so, and found the inside of the thighs, the scrotum and pubes a squirming mass of maggots. He had scratched the parts until they were raw and the flies had done the rest. I sent for a quart of molasses and had the attendant get a tub of warm water, in which I put plenty of soap. I made the patient lie on the floor over a crack, of which there were plenty, then slowly poured the molasses over the parts, letting it run through the floor, then flooded him with the warm soap water. There was not a vestige of larvia left. I persuaded "the powers that be" to furnish him a mosquito netting, gave him plenty of carbolated vasaline, directing that it be used freely on all his sores. He recovered without further trouble.

I feel sure very many of our prominent men die from an over-dose of "ethics." There are usually two or more physicians high in the profession in attendance, and they seemingly pay more attention to science and professional ethics than to the condition of the patient. While I am a strong believer in science and professional ethics, I am a strong believer in doing whatever is best for my patient. This is the case with most country doctors, who perhaps are not as well up on "ethics" as they should be. If after experience and observation a physician finds that a certain treatment or remedy will relieve certain pathological conditions, it seems to me he should use it, regardless of the source of his information. Hence I have often used the chicken gizzard tea "because it does good."

Report of Case of Acute Septic Nephritis.

By G. A. Catin, M. D., New Bern, N. C.

Child; aet; 5 years; male; fairly well grown; anaemic. Had a mild case of Rhus poisoning one month previous to attack. Mother noticed pronounced oedema of face July 28, and consulted Dr. H. Aug. 2nd. Aug. 6th consulted me; found patient in above condition with no fever, normal pulse, normal heart, normal liver, restless at night, nauseated, inability to retain any nourishment, slight pain on one or two occasions in small of back. General oedema quite pronounced. A careful inquiry reveals no history of previous illness of consequence except rhus poisoning, patient urinated somewhat frequently, small quantities which in the aggregate measured up to nearly normal amount in warm weather. Urinalysis, macroscopically, turbid red, heavy looking urine.

Microscopically—Urine centrifuged with water motor 10 minutes. Slide prepared and showed with eosin methyline blue.

Findings—Disorganized red blood corpuscles in plenty, streptococci, apparently of a most vigorous and rapid growth in great numbers, staphylococci equally abundant perhaps, and a dumb bell sheped bacillus which was most abundant. All these organisms were literally swarming. There were no casts.

Chemical analysis—Reaction acid; Spgr. 1014; no sugar; much albumin.

Treatment—Diet; skim milk and broths. Hot baths with much sweating twice daily. Strong mustard plasters over kidneys at intervals.

Medicinal—Calomel followed by epsom salts. Small doses salts twice daily afterwards. The potassium diuretic salts (a. b. c. mixture) with nitrou aether infusion digitalis. Also urotropin and salol Lemonade and much water.

Oedema much less pronounced in 48 hours. Microscopical findings were the same, except less blood and organisms.

In four days after treatment, only the dumb bell bacillus could be found and in less numbers (one specimen examined immediately after voided). Improvement has continued and today nothing abnormal is found in urine. Oedema has disappeared and little patient is apparently comfortable, but still anaemic.

Now is not Acute Septic Nephritis the only name for this disease? The facts of no casts and a rapid and complete recovery in four weeks indicate that no organic changes had

occurred. Holt describes acute diffuse septic nephritis, but this cannot have been the case with our patient for reasons obvious. How did these organisms gain entrance to the kidneys? What is the name of our dumb bell shaped bacillus?

137 Middle Street.

The Organ of Uterine Dilatation by Graduated Sounds.

By W. J. Stewart McKay, M. B., Mch., BSc., Senior Surgeon Lewisham Hospital, Sydney.

In this age of advancement the amount of accumulated knowledge is so enormous that we shudder to think what the lot of the unhappy medical student of the future will be when he has to cram for his examination; still more what a bad time is coming for the general practitioner who tries to keep himself abreast of his times.

When, I repeat, we contemplate the vast stores of knowledge that exist today, many of us are inclined to regard all the knowledge, or at least all that is worth knowing, as the direct offspring of modernity. And there are few among us who have the time, the patience, or even the inclination, to enquire how much we are indebted to antiquity for some of the therapeutic measures that we make constant use of in this, the new age of Pericles.

But yet the study of these books that have come to us a bequest from the past is not such dry reading as one would imagine; one even comes across flashes of humor in these old fellows which cause us as much merriment as the tickling humor of Mark Twain; while Trousseau and Allbutt's ready pens never traced more graphic word-pictures than those written by these men, who were masters in the art of observing. In fact it requires no long or close study of ancient writings to convince one that while the pathology of antiquity sprang from the same fertile brains that created their libidinous mythology, then clinical descriptions were the result of the habit of sitting down and watching their patients, until every detail connected with the case was fixed in the mind's eye. Then they reproduced, in terms which we are using every day, every hour, what they had seen at the bedside.

No one can doubt that it was such an observer who wrote the description of the *facies hippocratica;* and the abdominal surgeon of the present day, who is unfortunate enough to have a case dying of septic peritonitis, should stand at the bedside and for a few moments forget time, and as he watches the changes in the face of the dying one, read them the graphic word-picture of the immortal Greek, as it displays —— after the lapse of two thousand years.

"But we have no time for Hippocrates, Celsus and Galen; we do not sing with Stevenson,—

> "I know not how it be with you,
> I live the first and last,
> The whole field of the present view
> The whole flow of the past."

"Osler, Howard Kelly and Halsted are *our* Greeks!" And this is shouted to us from a motor car!!

Some such thoughts as these come to me from time to time, when I listen to discussing a new disease, new operation, new therapeutic agents. Quite recently I heard it mentioned, that to Hegar must be given all the praise for inventing the most practical method of rapid dilatation of the uterus in gynaecological cases. Now no one has a greater admiration for the brilliant gynaecologist of Freiburg than I have, and I freely admit that Hegar's dilators are the most useful means that we possess for gradually, and rapidly, dilating a uterus to a small extent, but I will not admit that the credit of the invention should be given to Hegar. I hold a half for the ancients in the matter, and this is my plea.

Among the works that have been handed down to us bearing the name of Hippocrates, there are some which are genuine, others which are spurious. Of the sixty-odd works comprised in the collection, probably thirteen were written by Hippocrates. Of the remaining works some were written by authors anterior to the time of Hippocrates, others by disciples during his life, immediately after his death, or at a later period. Now among the latter works there are some written previous to the time of Aristotle, and these deal specially with gynaecology.* In one of these works there is to be found the following description of the method employed, over two thousand years ago, in dilating the uterus.

The author of the treatise is dealing with rigidity and stenosis of the cervix, and he gives directions for the preparation of the patient. After the preliminary treatment in which fumigation of the vagina—now a lost art—plays a chief part he proceeds thus:

In order that we may dilate the cervix we must introduce pessaries made of pieces of very greasy pine wood; they should be smeared with oil, and ought to have a length of six fingers' breadth. There should be five or six of these dilators each ending in a point, and each succeeding one should be larger than the preceding one. The layers should be of the thickness of the index-finger, and should be very similar in shape to the finger, being in fact smaller at the distal than at

*I have give an account of the contents of these works in my "History of Ancient Gynaecology." London, 1901. An American edition of the work has been published by W. Wood & Co.

the proximal end. Again the dilators should be smooth and round, and of course it must have no splinters!

Then the author proceeds to describe how the dilation must be performed.

The smallest dilator is taken first, and when it has been placed in the cervix, warn the patient not to move, lest the dilator slip out.

At first the operator should introduce only the point, gradually turning the dilator round, and pushing it gently at the same time; then he should push it on into the uterine cavity for a distance equal to four fingers' breadth (which is 2.8 inches).

After the first rod has been introduced, it should be withdrawn, and replaced by a larger one without delay while the mouth of the uterus is still open. Then one after another the dilators are introduced.

But the ancient gynaecologist was not content with this alone, for after the dilatation was completed, he was accustomed to introduce a leaden pipe. The leaden pipe was hollow and was filled with mutton fat. During the day time the dilatation was kept up by a fine dilator, and at night time this was taken out and the leaden pipe introduced.

When the uterus was sufficiently dilated two suppositories were introduced into the uterine cavity.

Here then we see the origin of Hegar's dilators. They are not the invention of the modern gynaecologist, but of a specialist in women's diseases who flourished some centuries before the Christian era.

And what may be said of Hegar's dilators may be said of Sir James Simpson's sponge bath; for Aetius, who lived probably about the middle of the sixth century, A. D., has given us a very accurate description from Archilenes of the sponge tent when used for dilating the cervix. Here is the description taken for my History of Gynaecology. "But if we prove that the parts are soft to the touch we should introduce dried sponge, to which is attached a piece of the wall, in order that the narrow part of the canal may be dilated, and if the sponge slip out, we should place a larger piece in the uterus and for this reason it behooves us to have several different sizes ready."

I think I have made out a good case for the ancients to be considered as the only method of gradual dilatation of the uterus by means of rods. And even if you would put this claim out of court I could show that Macintosh, a teacher in Edinburgh in the first quarter of the nineteenth century, used to employ straight metallic sounds of different degrees of thickness for dilating the cervix in cases of dysmenorrhoea.

But the object of this short communication was not to detract from the credit due to Hegar; it was to plead in this age (when all knowledge is valued in proportion to the pecuniary return obtained for it) for a little consideration of these stores of knowledge to be found in the works of antiquity which deal with medicine, surgery and gynaecology.

Diseases of the Pharynx and Tonsils Due to Faulty Metabolism.*

By Clarence Porter Jones, M. D., Newport News, Va., Oculist and Aurist to several Hospitals; member of many Medical Societies, &c.

In the preparation of this paper I am deeply indebted to the writings of Kyle, Leland, Pawlow, Chittendon, Voit and Folin. Without further apologies to these authors, and with my own views based on a somewhat limited clinical knowledge, I submit a few words on a very prevalent physiologico-pathological condition, which affects many thousands of the families of our better class Americans. On an early recognition of these errors, may depend many years of peace and happiness, or of untold suffering and death on the other. A condition which is often entirely within the laryngolist's domain to diagnose and treat, yet there is comparatively a small amount of literature on the subject.

As there is no established classification, to my knowledge, of uric acid excess in the system, I will arbitrarily divide it into four forms, according to the clinical manifestation:

(a) When the urates are still in solution in the blood—uricacidaemia.

(b) When they have been deposited in surrounding tissues, but still in a colloid form—rheumatism.

(c) When they have become crystalline in the less vascular parts—gout.

(d) And when they have assumed a modified state, with feeble eliminant properties, and therefore the more poisonous to the system—lithaemia.

Within the domain of the title of this paper may be mentioned the various digestive disorders, either with or without the above.

Gouty or Rheumatic Pharyngitis, Acute and Chronic.

The great vascularity of the pharynx renders it particularly liable to an acute inflammatory process from the presence of an irritant in the blood, in this instance being some form of the acid urates exciting an inflammatory condition in the mucous membrane and superficial tissues; certainly that

*Presented as Candidate's Thesis, American Laryngological, Rhinological and Otological Society, Kansas City, Mo., June 11, 12 and 13, 1906.

portion which is concerned in secretion and elimination.

The various forms of uric acid in inflammation in the kidney may confine itself wholly to the mucous membrane of that organ. This is proven to be the case in any other membrane. Though the kidney is probably the most frequent site, the pharynx is believed to be a close second. The condition is often general, affecting the entire secreting and glandular structures of the body, invading even the muscles. When the condition is such as the kidneys are secreting lessened amount of uric acid (known as true lithaemia), the pharynx bears the brunt. Most frequently there is manifest no other symptom than pharyngeal. There may be slight headache, aching pains in the neck muscles, yet no gouty or rheumatic symptom, other than distress in the pharyngeal mucous membrane. No exciting cause can likely be shown; though exposure to cold and damp draughts may be mentioned. There is no pathology to mention, save that of an acute catarrhal inflammation; if this persists to be chronic, there is usually a thickened condition of the mucous membrane and sub-mucosa. The funcial tonsil, like the pharynx, is extremely liable to suffer from metabolic errors, quite often associated with pharyngeal disease of the same nature. The varieties of tonsillitis may be either superficial, cryptic or parenchymotous; this involving either a part or the entire organ. There is usually a history of repeated attacks, varying in severity and degree. Like the pharyngeal, these attacks may be associated with constitutional symptoms of the uric acid diathesis, &c., or these latter may be entirely absent. The large irregular tonsil interferes greatly with voice and deglutition, and in the cryptic variety, from decomposed debris in the crypts, is the cause of an offensive breath. The pathological change is about the same as that of any other variety of tonsillitis. With repeated attacks, there is an increase of the connective tissue elements of the tonsil, and the organ may be said to be of the hard variety.

It is to be remembered that this disease, whether in the pharynx or tonsil, is here a local manifestation of a systemic condition. There is no doubt a difference in the minute manifestations in the pathology of gout, rheumatism, and lithaemia; yet their clinical aspects are so much alike that they may be considered as one and the same disease. The patient is most always a person leading a sedentary life, a great meat eater, usually a coffee drinker, robust in appearance and having a morbid appetite. If he uses ardent spirits, he is most apt to be a drinker to a point of from two to four drinks per day, rather than to excess. The attack comes on suddenly. First is a sensation as if something is within the mucous membrane of his throat, slight pain, increased on swallowing. Then a constant desire to swallow, the throat feeling rigid, stiff, hot and dry.

Then the pain seems to localize, as if it were a fish bone stuck in some particular region, and before you can examine the site, the location has likely changed. The site of pain changes with each act of swallowing. Likewise the head assumes a different pose after each act. This pain is peculiar in its decided superficial character, feeling when he swallows as if a pin or sharp instrument is pricking the mucous membrane. Slight areas of superficial redness in the mucous membrane, changeable every few hours, are often seen. There is usually no rise in temperature. The patient, as a rule, can go about his usual avocation. Of course, bear in mind also that various constitutional symptoms and manifestations can co-exist. There is usually a strong family history of rheumatism or gout, which aids materially in the diagnosis. The urinary examination is unreliable; for in the uric acid diathesis proper, you usually find an excess of uric acid and urates, making the diagnosis, to your mind, absolute. Yet in the condition of lithaemia, you find a diminution of both uric acid and urea, which shows the kidneys to be deficient in elimination; a condition far more grave than the former. It is noticeable that this is the usual condition, for some unknown reason, when the chief symptoms are referable to the pharynx. The suddenness of the attack and the lack of marked clinical symptoms should have its weight. The treatment resolves itself into simply the removal of the cause. Local treatment is of no value as a means of cure. As a palliative, it may be valuable, or may aggravate the symptoms. If the throat is dry, an effervescing tablet, containing pilo-carpine, 1-100 grain, dissolved in the mouth every two or three hours, will be grateful. If these secretions are excessive, a gargle of 10 grains of common salt to half a glass of water, or the same amount of water acidulated with a drachm of dilute hydro-chloric acid every three hours, may completely relieve. Cases of an excessively painful nature I have found to be made more comfortable by hourly spraying with plain liquid alboline. Other cases do occur in which no local treatment can be tolerated. Regular systematic open air exercise for a period of two hours each day, is most advantageous. The exercise should be persisted in to a point of actual fatigue. The action of the skin should be stimulated by meaus of Turkish

baths, about two a week. A good substitute being some form of the cabinet vapor baths. Many patients cannot stand baths oftener than once a week, on account of the depressing influence on the heart. This fact should be carefully guarded. The course of digestive secretion, when under same conditions, are constant, both as to amount and digestive power. A given amount of meat, bread or milk, under same conditions, day after day, in the same individual, will follow a definite periodic law as to the quantity of juices secreted, and also their quality. Experiments have clearly proven that after bread is eaten, the greatest quantity of gastric juice is secreted the first hour and its digestive power is greatest the second hour. Meat shows the greatest amount of juice secreted the second hour, and the highest digestive power the first hour. Milk the third and first hours, according to the above. This is in the main true of the pancreatic glands. After the third hour the amount of these juices rapidly diminishes; to mere traces about the sixth hour. A study of these experiments forces us to condemn eating between meals, especially lithaemic patients. For continuous activity undoubtedly has a harmful influence on glands. The due nourishment and the restoration of organs after activity proceeds best during rest, and our remedy should be designed to effectively produce such a rest, and in this way contribute to the removal of the pathological condition, and thus a restoration of the normal state.

Idiosyncrasy plays an important role. It is important to note that what will suit one of these patients may poison another. Therefore observe the so-called Golden Rule in dietetics: "Give no directions with regard to food till one has made inquiries concerning the inclinations and habits of the patient." When a given dietary is long continued, certain fixed types of glands are set up, which can only slowly and with difficulty be altered. A change in diet too suddenly will set up digestive disturbance, as is seen after the close Lenten season, or after fasts. These disturbances are expressions of the temporary insufficiency to meet the new demands made on the glands. Recent experiments have established absolutely that the nitrogenous equilibrium can be maintained on a much reduced protein diet; the results being better work, both physically and mentally, constant body weight, a marked decrease of urea, uric acid and such products in the urine. The Japanese soldier is an example of strong body and mind from reduced protein, and chiefly fat and carbohydrate diet. We thus have testimony that even the standard diet contains an excess of nitrogenous material, and that this large proteid diet is unnecessary, as well as detrimental. The auto-intoxication diseases being due to excessive production of uric acid, zanthin bases, preatin and other extractives, which are, themselves, produced solely from proteids consumed; there is no better evidence needed to convince your usually intelligent patient that it is absolutely necessary to reduce his nitrogenous diet.

The most important point in the treatment is a suitable diet. A written diet list should be given to the patient, and he be thoroughly impressed as to its importance. Be sure and tell him that however skillful may be your treatment, that no good results can be accomplished without a strict adherence to this. Impress on his mind that, unless he uses his best and most honest efforts to get well, he will certainly, sooner or later, become helpless, and probably have grave heart or kidney disease. In this I do not give as strict a list as the authors lay down, for the reason that the disease is, as a rule, not so well established in our patient as when they consult the family physician, therefore, not so grave. Another point is, I only write down such articles as the patient may have, and get his promise to abide by them. I do not think it is a good plan to write down or name over a long list of palatable articles that he may not have, as this procedure is only calculated to whet his appetite for these, and sow the seeds of rebellion. My written list is as follows:

1st. Articles to be allowed in abundance. Raw clams and oysters, boiled fresh fish, fat bacon, broiled chicken and game, cabbage (well cooked), mashed potatoes, green peas, string beans, spinach, cresses, lettuce, celery, cream, skimmed milk, butter milk, graham bread, whole wheat bread, oat meal, cracked wheat, rye bread, hominy, crackers, dry or milk toast, rice and stewed fruits, without sugar.

2nd. Articles to be allowed occasionally, i.e., not oftener than once in two days, no one article to be taken twice in succession: Mutton soap, vegetable soup, chicken soup, sweet breads, tripe, eggs, soft boiled, poached or raw, small quantity of boiled ham.

An item to be enforced is the drinking of large quantities of water; this can be acidulated slightly with lime or lemon juice. A large quantity should be taken at a time. Vichy water is valuable. A five-grain Lithia tablet should be dissolved in a tumbler of water and drunk half an hour before meals. The use of alcoholic, malt or vinous liquors should be strictly forbidden; it may be necessary to gradually let the patient down by lessening the amount each day, as rapidly as possible. To stimulate the action of the

kidneys I find nothing so good as Basham's Mixture, the mistura ferri et ammonii acetati in three drachm doses every three hours for the first two days, thence twice a day.

As a cholagogue I use either effervescent phosphate of soda or Kutnow's powder. I must confess the latter is somewhat preferable; but I prescribe it in a limited number of cases on account of its proprietary nature. I do not think it is good for a patient to be made a so-called "ethical drug buyer," as he will likely become if we prescribe remedies whose bottles give the preparation away by some marks blown on it; or otherwise characteristic appearance. I do not prescribe calomel or any mercurial, to begin the treatment, for the following reasons: When you read over your limited diet list to a usually gluttonous eater he will think to himself that its observance is going to weaken him, from insufficient nourishment. The calomel will do this, and he will blame the diet list, and be tempted to disregard it almost from the very start, and your efforts will be fruitless; for I again assert that, to my mind, a carefully chosen diet is the most important item of the treatment. In cases of a distinctly rheumatic character, with constitutional symptoms to prove the course, salacylic acid and the salacylates should be used. Should the salacylates be badly borne this feature can be usually overcome by the administration of five drops of dilute hydrochloric acid, in a wine glass of water, half an hour before meals. Another point to be considered is the justice in charging these patients a higher fee than for ordinary practice, for these cases are more important than malaria or biliousness. The neurologist will tell you that this condition is a potent factor in nearly all grave nervous troubles; an added reason for prompt and thorough treatment. I think we should reserve the right to see the patient as often as once a day, in some cases, and name a good round fee in the first, collecting a goodly portion the first consultation. If you do this, you have at once won your patient's confidence.

118 32nd Street.

Two Cases of Extra-Uterine Gestation.*

By Dr. O. L. Shivers, Marion, Alabama.

In the spring of 1880 I received a request from a planter living four miles west of Newbern, Ala., to see a colored woman, aged 65 years. After arrival and examination, I found a case of cauliflower growth of the uterus which proved fatal in three months. Before I had finished giving instructions in regard to this patient, I was requested to see another woman on the same plantation. I found her pulse 140 to the minute. Temperature was not taken. Respirations rapid, but exact number to the minute not noted. Emaciation was extreme. The history which she gave was, the mother of two children, both of whom were living at that time. Two years and nine months previous to the time at which I saw her, she had sent for a midwife to attend her, at a time which she thought was the finale of a normal pregnancy, the date of incipiency of which she had forgotten. The midwife was retained for about two weeks, and, not being a surgeon or a gynaecologist, she, acting upon her own opinion, abandoned the case, as the abdominal distension seemed to her to have subsided. A few months after this her husband died. Then, after the passage of a sufficient length of time to manifest her respect and reverence for the memory of the departed, she listened to the seductive voice of another, who made a proposition of annexation of territory, and being of a diplomatic turn of mind, she ratified the proposition.

After the ceremony had been completed, she went to her second nuptial bower, bearing within her body a souvenir of her first husband. I found upon examination just below the umbilicus, and the abdominal wall was so thin, that I could feel the ends of the bones of a foetus. Feeling that her death was a certainty, I determined that if she had to die I would let her die taking a chance to get well. I accordingly made an incision three inches in length, below the umbilicus, in the "linea alba," from which poured out a quantity of the most foul smelling pus that ever offended human olfactory nerves. Not being prepared that day to remove the foetal remains, because of lack of instruments, I returned the next day accompanied by Dr. Jacob Huggins. The spine and ribs were still attached, but all the other bones were separate and had to be removed one at a time. There was no antiseptic used but boiled water. As already stated, she had had two children up to that time, but none since then. She is living now, and her health is comparatively good, as she is able to do ordinary housework. Thus "tasted she the poison of love's last adieu."

Case 2.—Mr. W. came to me Dec. 28th, 1903, on account of his wife having a continued and unremitting flow from the uterus which, he said, had existed for several weeks. Mrs. W. was the mother of five living children. He said also that she had not had a menstrual discharge for three months previous to this continued discharge. I did not make a visit to her on this occasion, but only made a prescription. On

*Read before the Baltimore meeting of the Southern Surgical and Gynaecological Association.

account of her living near three swamps I concluded, and erroneously so, as was afterwards proved, that she was afflicted with a chronic malarial infection. Living in a section of Alabama, where the lands known as the black prairie lands are so nearly level that the swamp lands are broad and covered with a dense and tangled forest growth, and the soil is saturated with moistgre, it requires the long continued heat of summer, prolonged into that season of the year "when the leaves begin to turn," to dry up the moisture from the soil, and the process of drying of the soil in the fall is nearly always productive of one or more of the protean forms of malaria. This is why I made a prescription of quinine for this long continued metrorrhagic(?) flow.

Jan. 25th, 1904, Mr. W. requested me to make a visit to his house, and then make a thorough examination of his wife, and after mature deliberation to give him my opinion as to her condition. This I did. Upon bimanual examination, the uterus very much enlarged, and the enlargement was upon the left side, extending in that direction, about 3½ inches from the median line. There was no enlargement in the median line. From the external os to the fundus uteri, by measurement on the uterine sound, was four inches. The metrorrhagic flow still continuing, I dilated the cervix and curetted the uterus from the fundus to the external os, and placed half dozen tampons of cotton, saturated with boroglycoride, around the vaginal portion of the cervix uteri. The effect of this was only temporary in holding in abeyance the excessive flow. Never had visited her previous to this time, and yet the history given by her was that up to the beginning of this metrorrhagic flow no evidence or symptoms of menstruation had been manifested for three months.

Jan. 30th, 1904, I made another visit to her, and they gave a history of metrorrhagia still continuing. Being undecided in my own mind as to its being an intra-mural pregnancy, or an inter-stitial fibroid, or possibly an incipient pregnancy occurring in the tube just beyond the wall of the uterus, I concluded that I would exercise a conservative line of treatment, so I gave her a combination of nux vomica, potassium iodide and fluid extract of ergot. Jan. 31st, 1904, I saw her at 9 a. m. She had been suffering some pelvic pains which, she said, resembled labor pains, but they were not up to that time frequent nor severe. The enlargement on the left of the median line was still as it was when I first examined it. But when a pain would come there would be a distinct manifestation of uterine contraction, shown by its hardness recurring, at that time, at intervals of half hour. Examination of the cervix showed no dilatation at this morning's examination.

Directing them to continue the administration of the combination of nux vomica, potas. iodide, and fluid extract ergot, I left promising to return that evening, which I did. After making a bimanual examination I found that the enlargement to the left of the median line had disappeared, and the external os had dilated approximately to the size of a silver half dollar. An hour from that time a foetus, dead of course, had passed away and the measurement showed a length of approximately five inches. When the foetus passed away the cord was broken and, as the placent was formed, I preferred to wait awhile for its expulsion, by means of natural uterine contractions, rather than invade the sanctity of the uterine cavity, with hand or instruments, no matter how well sterilized both might have been. I was not disappointed. The patient being desirous of emptying the bladder, asked if it would be prudent for her to sit up, out of the bed, to accomplish this function. I told her there would be no harm for her to do so. She took advantage of my counsel and sat upon a vessel near the bed, and in a few seconds the placenta passed away in its entirety. From this time there was an uneventful recovery, and today she presents to an observer the appearance of as healthy a specimen of physical womanhood as can be seen.

Chastity and Health.

By M. L. Stevens, M. D., Asheville, N. C.

Forward.

This address was written to meet the needs of young men as I know them. In the preparation of it I have not aimed at strict originality, but have quoted liberally from the writings of those whose names would lend authority to the views herein prssented.

To those who question the proprietary of speaking openly on this question I would say that a suppurating wound must be opened up before it can be healed. M. L. Stevens.

Our English language with its wealth of words has been enriched from every civilized tongue on the face of the earth until it is supposed to have in its vocabulary one or more words to represent every entity or idea for which we need a designating term. And from its limitless resources new words are being constantly coined as the need of them arises. One of the words in this great list is "Virgin"—meaning an unsullied woman—one who has not had intercourse with man; but in our immense vocabulary of 300,000 words we have in current use (Foot note 1) no corresponding term mean-

(1) Cor. 7:25 applies the term "Virgin" to males also, but this use of the word is not common.

ing a virtuous or unsullied man. There is in this fact a strange and sad suggestiveness which leads us to inquire, Have we no need of such a term? Are there no virtuous men?

It is only too true that sexual purity among men is the exception, not the rule. Of the young men of our cities but a small percentage retain their purity up to the time of wedlock, and even in the country where the temptations are not so great, the majority of the male population have sullied their chastity before marriage. In the light of these facts I need offer no apology for addressing even the members of the Young Men's Christian Association on the subject which has been announced for the afternoon.

There is among boys and young men a dearth of wholesome information and much lamentable misinformation concerning the physiology of the sexual organs. Much of that which boys learn concerning sexual matters is learned from improper sources. Many things generally accepted as facts are errors. About half the youths of the land have grave fears that their sexual organs are imperfectly developed, or ruined. Of noctural emissions, a normal function, a bugbear is made. That devil's lie, that the demands of health require the exercise of the sexual function, like Banquo's Ghost, will not down. That gonorrhoea is not more serious than a bad cold, and that syphilis is easily curable, many believe. The responsibility of the young man to his future wife and his unborn children is not usually considered. These things I will touch upon today while talking to you on Chastity and Health.

The subject is one that should be treated frankly and honestly. This I will endeavor to do, at the same time guarding my language from expressions and sentiments that would detract from the dignity of either the speakers or hearers. If you are living a chaste life I will show you why you should continue to do so; if you are incontinent, I will show you physiological reasons for curbing your sexual appetite, and reforming your habits.

During infancy and childhood the sexual system is undeveloped and is normally quiescent. During youth, which covers that period of life between childhood and manhood, a new era dawns, beginning with the series of phenomena called puberty. "The youth awakes to a new world and understands neither it nor himself." (Hall "Adolescence").

The quiescent or dormant period buds and blossoms into spring season of life, such as Tennyson beautifully describes;

"In the spring a fuller crimson comes upon the robin's breast;
In the spring the wanton Lapwing gets himself another crest;
In the spring a livelier iris changes on the burnished dove;
In the spring a young man's fancy lightly turns to thoughts of love."

At this period of the boy's life various structural and functional changes take place in the body. The most important of these is the enlargement of the sexual organs and the beginning of functional activity on the part of the testicles, which secrete the semen —the impregnating fluid. From puberty to old age the testicles continue to secrete this fluid in quantity varying in accordance with the health, habits, and environment of the individual. "And now begins the struggle which every healthy young man has to encounter, and from which he must come out victorious if he is to be all that he can or ought to be. The child should know nothing of this trial and ought never to be disturbed with one sexual feeling or thought. But with puberty a different state of things arises; a new power demands to be exercised—a new want to be satisfied. It is, I take it, of vital importance that boys and young men should know not only the guilt of an illicit indulgence of their dawning passion, but also the danger of straining an immature power and the solemn truth that the want will be an irresistable tyrant, but only to those who have lent it strength by yielding." (Acton "The Reproductive Organs" p. 10) "The whole future of life depends on how the new powers now given suddenly and in such profusion, are husbanded and directed." (Hall "Adolescence."

The semem is the most important secretion of the male body. The spermatozoa are its essential element. These can only be seen when examined under a good microscope. When the semen is so examined, it is found to be full of little wriggling cells, which, in shape and movements, are not unlike the wigglers or wiggle-tails which develop into the mosquito, or the tad-pole, which represent one stage in the development of the frog. They were discovered 200 years ago and were thought to be parasites. Their real function has been known only a half-century. Although it takes several hundred of them to measure an inch in length, yet within each of them is contained that function which brings us nearest our Creator—the power of imparting life; for it is the spermatozoon, which coming in contact with the ovum of the opposite sex results in forming a new being. Nor is this all, within each indivisible spermatozoon of your semen is stored up also the power of giving to that new being your

characteristics of feature and movement, your strength or your disease, your mental qualifications and your temperament, your virtues or your vices. So the semen is not an ordinary secretion. The other secretions, as those from the kidneys and liver and the mucous membranes, contain no living matter, while this is teeming with life, and contains "elements of a very different and far higher biological order than any other tissue or organs. To their interests could we but know them, all others whatsoever should yield." (Hall, "Adolescence," p. 419). Medical men well know that the normal secretion of semen influences the physical and mental characteristics of the man. The natural action of the testicles is attended by phenomena influencing the whole system, the voice, the growth of the hair and beard, the gait, the strength, the will, the susceptibility to diseases, and even character itself. After a youth has arrived at the age of puberty the testicles, beginning their work will, after a time, have secreted enough semen to fill the little reservoirs neath the bladder in which it is stored up, and even though the boy be innocent of any vile practice this over-charged condition results in attracting attention to the sexual organs. There is an increased flow of blood to them. He becomes restless, and there is, as Lallemand (vol. 2, p. 334) says: "an indefinite derangement of all the functions." He becomes unable to settle his mind to anything and oftimes he will "seek solitude in order to dream about this great mystery which absorbs him, about these great unknown feelings which causes his blood to boil," (Ibid). "But after a time nature comes to the relief with a spontaneous emission or escape of semen—usually at night—which causes the state of plethora to cease, and is a true and salutary crisis, which for the moment re-establishes the equilibrium of the physical economy." (Ibid). And if these organs are not stimulated to activity by causes which are external to them they are not apt to give trouble oftener than two or three times a month. And each time nature comes to the relief. Such emissions are attended by no evil consequences, though some physical depression may result in those who are ignorant of their significance. So if you are leading a chaste life, do not permit a bugbear to be made out of the occasional occurrence of the noctural emission of semen. Under such circumstances it is only evidence that your sexual organs are in a healthy condition and are taking care of themselves and need no help from you. The allwise Creator has thus provided that the unmarried man should not be harmed by chastity. But, too often the youth, ignorant of the consequences, has had his curiosity aroused by smutty stories, obscene talk and even by the example of evil companions, and under pressure of these feelings gives way to the desire to gratify them in sexual intercourse, if opportunity presents, or in the debasing substitute for intercourse, masturbation. This indulgence like the spontaneous emission, gives relief to the over-loaded organs, but this relief is of short duration. For in sexual intercourse and in masturbation the manipulation of the sexual organs which results in the orgasm and the expulsion of semen has also a direct effect upon the activity of the testicles, causing them immediately to begin to refill the reservoirs which have just been emptied of their semen, and which, as often as filled, will again demand that they be emptied. Having gratified this desire a few times chastity becomes much more difficult. The testicles are rapidly producing semen which by over-loading the seminal vesicles brings on an irritable condition of the nervous system, and he becomes unable to concentrate his mind on any other subject, he becomes restless and can hardly sit still, and sexual ideas intrude perpetually on his thoughts until he again gives way to the self-prescribed remedy—sexual intercourse or masturbation. Those who are strictly continent suffer but little of this irritability. From this you see that the great secret of success in a life of purity is the avoidance of the first indulgence. You cannot begin a career of vice with the idea that you will stop it when you see that you are harmed or when you choose. An eminent English specialist in diseases of the sexual system well says: "If a young man wished to undergo the acutest sexual suffering he could adopt a no more certain method than to begin a life of incontinence with the avowed intention of becoming continent again after he had sown his wild oats. The agony of breaking off a habit which so rapidly entwines itself with every fiber of the human frame is such that it would not be too much to say to any youth commencing a career of vice, 'you are going a road on which you will never turn back. However much you may wish it the struggle will be too much for you. You had better stop now. It is your last chance.' There is a terrible significance in the wise man's words 'None that go to her return again. Neither take they hold of the paths of life'." Prov. 2:19. (Acton "The Reproductive Organs" p. 18).

That the sexual instinct is a natural one we would not deny. But we would impress upon you that the early indulgence of it is not natural, that masturbation is not natural, that any indulgence outside of wedlock is not natural. Carpenter, the great

physiologist, says: "The development of the generative organs at puberty is attended with manifestations of sexual passion, but it can only be rightly regarded as preparatory to the exercise of these organs and not as showing that the aptitude for their exercise has already been attained. It is only when the growth and development of the individual have been fully completed that the procreative power can be properly exerted for the continuation of the race, and all experience shows that by prematurely and unrestrainedly yielding to the sexual instinct not only the generative power is early exhausted, but the vital powers of the organism generally are reduced and enfeebled so that any latent predisposition to diseases is extremely liable to manifest itself, or the bodily vigor, if for a time retained with little deterioration soon undergoes marked diminution." (Carpenter's Physiology, 7th edition, p. 825). Hall, in his recent masterly work on Adolescence, says: "The most rigid chastity of fancy, heart and body is physiologically and psychologically, as well as ethically imperative until maturity is complete, well into the twenties, nor is it hard if continence is inward, for nature in all normal bodies brings normal relief." (Vol. ii, p. 120).

Those youths who form evil sexual habits early in life risk losing the prime of their life, the strength of their manhood, by being ushered from youth into decrepit and debauched old age. The Hindus and Parses, among whom marriages are consummated soon after puberty, furnish us a terrible illustration of the result of early gratification of the sexual desires. Among them there are but few robust men. (See Varley "Die Fluch der Manheit" p. 58).

Among the lower animals the provisions of nature are such that they are not permitted to gratify their sexual passions until they have attained their full growth and strength. The young males are driven away from the herds by the older and stronger ones, and only when they have fully matured and can battle successfully with the strongest of the herd are they permitted to exercise their procreative power, "The cock must win his spurs." Breeders of stock have found that their male thoroughbreds if "stood" too young neither mature as they should nor beget the progeny equal to that from a mature sire of the same strain.

The sexual instinct in man and the lower animals is the same. But among the brutes masturbation is unknown. It remains for man, endowed with reason which makes him far superior to all other creatures, to fall into a habit so much beneath the habits of the beasts. Intercourse outside of wedlock gratifies the sexual instinct, but at the same time defeats the very end and purpose for which nature implanted that instinct in us. It is prostitution, and man is the only animal that degrades itself by prostitution. In the whole brute creation you cannot find a single creature that pairs with its female with any other purpose than that which in man prompts him to marriage, or that does not respect and care for the creature with which it has thus paired. Even the bear and the tiger protect the females with which they have had intercourse, and are loyal and devoted to them as man to wife, never abusing or prostituting the function which enables them to keep up their race. So let no one defend his impurity with that threadbare excuse that he is obeying Nature's dictates! when in the whole realm of nature not a single creature is found that by its life and habits does not prove that impurity is not natural—that impure men is the great exception to the universal order and harmony of pure nature. The Duke of Argyll, in his Unity of Nature, says: "The contrast which it presents to the general laws and course of nature cannot be stated too broadly. There is nothing like it in the world. It is an element of confusion amidst universal order. Powers exceptionally high spending themselves on activities exceptionally base; the desire and the faculty of acquiring knowledge coupled with the desire and faculty of turning it to worst account. Instincts immeasurably superior to those of other creatures alongside of conduct and habits very much below the level of the beast—such are the combinations we have to deal with as unquestionable facts when we contemplate the actual condition of mankind. And they are combinations in the highest degree unnatural. There is nothing to account for or explain it in any apparent necessity."

But do not the requirements of health demand that the sexual organs be exercised? No. If the sexual organs are not excited to sexual activity a large part of the semen secreted is re-absorbed and taken up by the blood, giving to the individual increased buoyancy and strength, increased vigor and endurance, and increased mental energy. (1) The gladiators of old were required to abstain from intercourse when preparing for the arena. The oarsmen of the university boat crews are not now permitted to leave the boat house when in training for the regatta. The pugilist training for the ring is not away from his trainer for a single minute, day or night, lest sexual sins with loss of semen lessen his strength and skill. The increased mental vigor of sexual abstainers is one of the reasons for the celibacy of the priesthood. And in certain diseases semen is injected into the system

artificially for its tonic and strength-giving properties. So the fear that the sexual system will be impaired if the organs are not used is certainly without foundation. I might cite many authorities in support of these statements, but will only quote the words of an eminent specialist in diseases of the sexual system, who says: "There is no greater error than this, or one more opposed to physiological truth. I may state that I have after many years of experience never seen a single instance of atrophy of the generative organs from this cause." (Acton "The Reproductive Organs" p. 47). It is the sexual excesses that cause impairment. The Apostle Paul says: "It is good for man not to touch woman." (Cor. vii:1).

If chastity injures no one, can the same be said of sexual vice? Of those who lose their chastity many also lose their health. Loss of virtue usually means loss of health and frequently that of the future wife and children. A detailed description of the contagious venereal diseases would lead us too far into an uninviting field. I would like to mention some of the evil results of masturbation as evidenced by the appearance of the individual, especially the eyes, the complexion, the hands, the walk, the operation of the mental faculties, but I refrain lest I embarrass some by calling attention to personal characteristics. Those who are specially interested in this part of my subject will do well to look for these evidences in their looking glasses.

The wear and tear on the nervous system resulting from sexual excitement and the great drain on the physical system from the loss of semen (1) can so sap one's vitality and lower his resulting powers as to make him specially liable to some of the chronic diseases. Among those who journey to our city in quest of health, there are always those who can associate the beginning of their malady with unnatural sexual practice, and among the obstacles to the cure of pulmonary diseases we find sexual excesses one of the most formidable. But there are other and farther reaching consequences of sexual vice. The greater number of those who indulge in illicit sexual intercourse sooner or later contract one of the contagious venereal diseases. (Foot Note 2).

These diseases are often regarded lightly and looked upon as of little consequence. Alas! the error of this. If they affected only the guilty ones it would seem but a just retribution and would be less sad, but the innocent are made to suffer with the guilty. Dr. Prince A. Morrow, than whom there is no better authority, says: "There is more venereal infection among virtuous wives than among professional prostitutes." (Foot Note 1). (Jour. Amer. Med. Asso. March 4, '05). This is the result of infection from husbands who had followed the way of the world and most of whom thought themselves cured of their disease before marriage. A large percentage of the surgical operations performed on married women are the result of the husband's vice. And among the helpless offspring of such marriages the physician sees daily proof of how literally God still visits "The iniquities of the father upon the children unto the third and fourth generation." The female prostitutes who sacrifice themselves for the gratification of man's lust live, according to Dr. Howard A. Kelly, an average life of six years, and most of them die consumptives, paupers or inebriates. (Jour. Amer. Med, Asso. March 4, '05).

But chastity is for the youth and the unmarried man always a struggle, and not every one will be completely successful in it. And when once vile habits have been formed many youths and strong men fail in freeing themselves from them. Each new defeat lessens the strength left for the struggle, and in extreme cases even when with medical aid the victim has succeeded in extricating himself from his vicious propensities it may be impossible to restore the physical frame. The haggard expression, the sunken eye, the long cadaverous looking countenance, the downcast expression which seems to arise from fear of looking a fellow creature in the face, may be carried to the grave. Undoubtedly care and attention will do much in remedying the intellectual wreck which we see in such persons." (Acton, Ibid p. 59).

(Foot Note 1) Dr. J. M. Taylor writing in the Medical Sentinel quotes five of the most prominent physicians of Philadelphia as follows:

Valentine says: "Eighty per cent. of all women who die of diseases of the reproductive organs are victims of gonorrhoea of which their husbands imagined themselves cured."

J. C. Clark says: "Fifty per cent. of his operated cases (gynecologic) are gonorrhoeal in origin."

E. P. Davis says: "Five to ten per cent. of all his hospital cases (gynecologic) are gonorrhoeal."

Joseph Price says: "Ninety per cent. of pelvic inflammatory cases (gynecologic)

(1) Fernal said *totus homo semen est* (the semen is the whole man).

Parise estimated that 1 ounce of semen equalled 40 ounces of blood. This estimate is not now considered correct.

(2) Dr. S. Reti in "Sexuelle Gebreched" says: "That 50 per cent. of the male sex sooner or later contract a venereal disease."

are of gonorrhoeal origin."

Richard C. Norris says: "Eighty per cent. of dispensary cases (gynecologic) are gonorrhoeal."

Barton Cooke Hirst says: "Eight per cent. of the better classes of his private patients and probably 75 per cent. of the hospital and dispensary cases are venereal."

So to those who are trying to live a chaste life it is important to know what aids to seek and what dangers to avoid. It is to me a matter of regret that the limitations of this paper will not permit more than the briefest possible treatment of this part of the subject. The first and greatest stumbling block in the way of purity is the lack of wholesome instruction to those who are entering puberty. The first indulgence is usually the result of curiosity and ignorance of consequences. It is time that parents and teachers should learn that ignorance is not innocence, "That alone is virtue, which has good placed before it and evil, and seeing the evil chooses the good." (Ibid p. 47). Many a young man is the victim of an evil sexual habit for the beginning of which ignorance is more responsible than vice.

The good influence of religion in staying one against the temptations which beset youth cannot be overestimated. But religious teaching, too, needs to be more candid. The Bible itself is frank enough. It clearly states that chastity is not harmful (i Cor. vi, 13-18; vii, 1-8). That noctural emissions are natural is evidenced by the fact that they were counted upon by the law of Moses (Lev. 15:26; Deut. 23:10). The light in which God held unnatural sexual practices is seen in the punishment of Onan for spilling his seed upon the ground (Gen. 38:8-10). In Old Testament times as now nature imposed the penalty of venereal diseases upon those who indulged in indiscriminate sexual commerce and the Levitical law pronounced those unclean who were suffering from such diseases (Lev. xv:3-13). Adultery was punished by putting to death both parties to the act (Lev. xx:10). The wiles of the harlot are clearly set forth (Prov. v and vii) and the dangers of prostitution held up before us. "Give not thy strength to woman nor thy ways to that which destroyeth Kings." (Prov. 31:9). "For she has cast down many wounded, yea many strong men have been slain by her." (Prov. vii:26). "Her house is the way to hell." (Prov. vii:27). A steadfast faith in God who is able and willing to help is the greatest safeguard against the temptations which assail youth.

Sexual desire is very much increased when the mind is directed toward the object or means whereby it can be gratified. Hence the need of wholesome employment to direct the mind along other lines and to expand the nervous energy in other ways. Idleness and chastity are incompatible. In sexual matters especially is it true "An idle brain is the devil's workshop."

Strength of character and will are also necessary. He who can apply his whole strength of mind to turning away from physical temptations has a power over the body which makes the victory much easier than it is for him who, without such strength of character, tries not to yield and must undergo much sexual suffering in the conflict.

In the healthy young man the will needs to be strong and on the alert if the sexual passion does not at times gain the mastery over it. All those influences which increase sexual desire or lessen the power of the will render the conflict an unequal one and make defeat almost certain. Of such influence I would specially mention the companionship of those who are immoral. We all tend to become like those with whom we associate. Your associates should be selected from those who are better than yourself. But the rock on which the good resolutions of many are ship-wrecked is alcohol. All alcoholic drinks heat up the blood and cause it to go surging through the brain, excite sexual passion and at the same time they weaken the judgment and rob one of his self control. No one under the influence of drink can repeatedly expose himself to sexual temptations and retain his chastity. The young man who habitually uses alcohol is also either a masturbator or a fornicator.

These are the most important aids to a life of chastity, wholesome instruction—religion—suitable occupation, and strength of character. And the greatest dangers are to be found in evil companions, idleness and drink.

He who is properly instructed and helped can, if he honestly tries, obtain and keep the mastery over his passions and be a virtuous man—the noblest object in the world. Nevertheless I should contradict the experience of those who have tried it if I were to represent this struggle as an easy one. It may need your whole strength and character of will and all the aids which I have mentioned to succeed. And if you fail, as may will, and become a slave to your passion do not in a moment of weakness appeal to one of the "Lost Manhood Restorers" for whose shameless advertisements space is given even in some of our religious papers. Avoid them as you would avoid an enemy. Many are attracted by their promise of secrecy and held by their alarming statements which sink them deeper and deeper in despair while they draw from them their

life blood and their dollars. When the victim can no longer be duped his confidential letters are sold (Foot Note No. 1) to others who are in the same nefarious business, but who have a different so-called cure. According to the president of one of the large Universities (Foot Note No. 2) who has recently written on this subject "Lancaster found 3,000,000 confidential letters written to advertising "Doctors" and "Medical Companions," mostly by youths with their heart's blood, and under assurance of secrecy, which are sold at syndicate prices." He estimated that he could buy at least 7,000,000 such letters if he wanted them. Thus it is that if you write to one "Lost Manhood Restorer" you will, in the course of a year, receive communications from a number of the different ones. If you need help go to your family physician. He knows the weakness and frailties of human nature, and you will find in him not only a helper, but a friend. You may feel that you cannot go to him with the confession that you would have to make. But bear in mind the fact that in most cases he knows it whether you tell him or not, and he is consulted many times each year for similar troubles and he has never told on a single case. You can safely trust him.

When a youth arrives at the age of manhood the growth of the body should be complete. The immature limbs of the boy are converted into the firm and elastic frame of the man. The mental powers are at their highest. The will and judgment command and yet are enlivened by the remains of the youthful energy and enthusiasm, and what is more to the present purpose, the virile powers whose active development began at puberty—now at last matured—should be fit and ready to be exercised in obedience with the Creator's command "Be fruitful and multiply." At a period differing in every man's life, but occurring generally between the ages of 20 and 30, the individual is conscious of a great change in those sexual tendencies of which he has been frequently conscious before. They are no longer the fitful fancies of the boy, but are capable, he feels, of ripening at once into the steady and rational passion, or rather purpose, of the full grown man. The natural longing is still there, but it is no longer toward mere sexual indulgence, but is deeply tinctured with the craving for a wife—home and children." (Acton "The Reproductive Organs" p. 70). These are the evidences of virility and it is upon this condition that the preservation of our species depends. Acton says: "This feeling of virility in man is much more developed than is maternity in woman. Its existence, indeed, seems necessary to give a man that consciousness of dignity of his character as head and ruler, and of his importance which is absolutely essential to the well-being of the family, and through it of society itself. It is a power, a privilege, of which the man is and should be proud—so proud that he should husband it and not squander or debase it. A possession in its own way as precious as that of chastity itself." (Acton, p. 73). "The fairest virtues, far above the rest."

I cannot close without a word in regard to the unequal standard of sexual purity which society has set up for the two sexes.

Chastity has ever been regarded as an essential attribute of woman, and a woman by her first act of impurity commits a crime which society never pardons, and the penalty for which is life-long banishment from association with the respected. But among men impurity is so common as to be almost universal, and is even talked of as a "necessary evil." (Foot Note 1).

Men are by nature as modest and self-respecting as women. But in our day before a boy becomes a man his finer instincts have been trodden down by the low tone of social opinion, and the very springs of purity have been foiled by the swine's hoofs in the shape of coarse jocularity and unclean talk. He soon learns from his elders to think it manly to be not too modest or virtuous and to speak of sexual crimes as lightly as he would of being late to dinner. Our average young man expects his sister to be "As chaste as unsunned snow," yet he himself can indulge in sexual liberties or excesses of any kind and society says nothing worse of him than to speak apologetically of his "indiscretions."

Even gray headed men who are prominent members in our churches and who expect their daughters to be "Fresh as flowers and as pure as God's unspotted skies" take liberties with women who are not their wives, and even visit houses of prostitution, and when spoken to concerning it even laugh at their "little game" as they call it. And yet society does not call them whore mongers and adulterers as they are, but if it speaks of the matter at all it is only to say that they are "a little irregular but are good

(Foot Note No. 1) For further information on this subject see Ladies Home Journal, Jan. 1906. For open advertisements of confidential letters see "Mail Order Journal," April, 1905.

(Foot Note No. 2) President Hall, of Clark University.

(Foot Note 1) When the writer was a student in a Quaker school an address was one day read to us on the subject of Purity. Some of the thought and possibly some of the language of that address are contained in what follows. Not knowing from what book the reading was given he is unable to give proper credit.

honest men and consistent members of the church."

And the fast young man—the young man who is sowing his wild oats—can gain the affections of an innocent, thoughtless girl. She listens to his soft words and gentle wooing, until in an evil moment she flings her best at his feet. He deserts her in her hour of greatest trial. His own child becomes the millstone around the neck of the mother of his child to drag her down to deepest hell on earth—an outcast from society that must drag through life with a damaged character and a broken heart, while he goes off comparatively free and society does not kick him out as the villain he is, and he may yet be a respected member of the community.

Why should this injustice be heaped upon woman by requiring of her a standard of purity that is not required of man? All must admit that the law of purity should apply equally to both sexes.

But what can you do in the matter? You can do much. And you will be held responsible if you do not do it. You can make those whom you meet feel that you think it dastardly for a man to degrade a woman or degrade himself with practices which he could not sanction in his sister. You can discourage the dirty story—you can refuse to laugh at the coarse jest and make yourself as much a damper as possible to all improper talk—you can say a warning word to those who are younger than you—you can refute the devil's lie that prostitution is a necessary evil—you can treat every girl you meet with chivalrous respect. If she is bold you can resist her advances. Fast girls do afford amusement, but you may purchase your amusement at the cost of all that is brightest and best in their womanhood, and what is fun for you may be a deadly risk to them. So, for their sake forbear. And, lastly, if some poor unfortunate ever comes up to you and would tempt you to an act of impurity, remember that you have a sister and it would break your heart to see her so degraded. Have the manliness to tell your tempter this, and die rather than add to her degradation.

It is possible for this Young Men's Christian Association to establish and maintain, in regard to this question, the right kind of sentiment, and to mould public opinion for the town. Let you watchword be Make Chastity Fashionable. (Foot Note 1).

Now young men let me urge you by all that is noble in you—by the purity of your mother—by the purity you expect in your sister—by the purity you would require in one whom you could love as a wife—see to it that in the future our English language shall have need of a word meaning a *virtuous* male;—see to it that in so far as your influence goes—and it goes to all with whom you associate,—you uphold the truth that the law of purity is equally binding upon men and women. And see to it that she whom you expect to come to you on your marriage morn a virgin, pure and undefiled, may not receive in return a damaged article, —a man so base that he would pass himself off as to be pure to the woman who loves and trusts him. The woman who gives herself to the man she loves with such boundless self-giving love that even her name is merged in his surely has the right to require that he come to her in the pure strength and freshness of his unfallen manhood, just as he expects her to come to him in the beauty of her spotless maidenhood.

(Foote Note 1) Confucius says "Virtue is not left to stand alone. He who practices it will have neighbors." Analects, Book I, Chap. III.

Three Cases of Prostatectomy: Two by the Suprapubic and one by the Perineal Method.

By George Walker, Associate in Surgery, Johns Hopkins University.

Two of these were instances of simple enlargement of the prostate, the other one was complicated by stone and a papilloma.

Case 1.—The patient was 63 years old; the former history had been good; he denied any venereal disease. He came to me for treatment in November, 1903.

The family history was entirely negative.

Present Illness:—Twelve years ago he began to suffer with some difficulty in micturition. This gradually increased, so that from time to time the use of the catheter was necessary. There was little pain, and other than the frequent and difficult micturition there was no disturbance. For the last year there has been great difficulty in voiding urine, this being particularly noticeable after some hours of sleep. Micturition was necessary every hour and a half during the day and three or four times at night. Only a small quantity could be voided at a time.

Examination.—Fairly robust man, well nourished, slightly anemic; the heart and lungs are normal; the kidneys are not palpable; pulse 72, regular and of good volume; arteries soft; tongue not coated; mucous membranes of a good color. In the lower part of the abdomen there can be felt an egg-shaped fluctuating mass, flat on percussion, which extends upward from the pelvis as high as the umbilicus. This is taken to be a distended bladder.

The prostate by rectal examination is felt to be enlarged and irregularly nodular; the left side is larger than the right. The middle lobe is so much enlarged that the upper

border cannot be reached with the finger. The consistence of the whole gland is uniformly firm but not hard. The seminal vesicles are not palpable.

A soft rubber catheter was introduced without difficulty and seventy-two ounces of a pale straw colored, slightly clouded urine were withdrawn.

Urinalysis.—Acid, pale straw color, slightly turbid, faint trace of albumin, no sugar. Microscopically; leucocytes, bladder epithelium, a small amount of granular debris, no casts.

He was sent to the hospital and catheterized and irrigated with boric acid solution twice daily for four weeks. This was done in order to allow the bladder to partially regain its normal size. The tone soon began to return and after a little while the bladder was able by its own power to expel the urine when the catheter was introduced, whereas at first it had been necessary to express it by pressure on the abdomen.

At the end of four weeks a Bottini operation was performed; one middle and two lateral cuts being made. The procedure was done without difficulty, there was only a slight hemorrhage and no complications followed. After this the patient was catheterized and irrigated twice daily for one week. At the end of this time he began to void voluntarily; the amount at first varied from 30 to 50 cc.; this gradually increased so that after another week the catheter was discarded, although there was still a residual urine of about 150 cc. His general condition improved very much and on his discharge four weeks after the operation he was voiding every three hours from 150 to 200 cc. at each time. This was effected without straining and the stream showed considerable force. The residual urine at this time varied from 100 to 150 cc. After six months some difficulty in urination was again experienced, and after one and a half years an examination showed a residual urine of about 300 cc. Notwithstanding this, the patient stated that he had very little local discomfort and refused to have anything else done. Six months elapsed before he presented himself again. At this time he was voiding every one to two hours with considerable difficulty and was experiencing more or less local discomfort.

On rectal palpation the prostate presented about the same characteristics as at the other examination, except that it was slightly more enlarged and somewhat harder. The urine was very cloudy and full of pus and bacteria (bacilli and staphylococci).

Cystoscopic Examination.—The cystoscope was easily introduced. The middle lobe of the prostate appeared nearly the size of an egg; it was very irregularly shaped, somewhat bifurcated and lay towards the left side; the two lateral lobes could not be distinctly outlined. The bladder mucous membrane showed a slight inflammation, but taken altogether its appearance was remarkably good; there was no evidence of trabeiculation, nor diverticula; the orifices of the ureters could not be seen.

Urinalysis.—Acid, very cloudy, faint trace of albumin, specific gravity 1018, no sugar. Microscopically: a large number of pus cells and epithelium, no casts. Amount of urine in 24 hours 1600 cc.

Operation. Suprapubic Prostatectomy. (Dr. Fisher). Ether. After a suprapubic opening, an incision was made with a pair of scissors into the base of the bladder over the greatest prominence of the prostate; the index finger of the right hand was inserted into the bladder and an assistant's finger into the rectum. The gland was very readily enucleated in its entirety in from eight to ten minutes. It was large and irregularly shaped. A piece of iodoform gauze was inserted into the prostatic cavity and the end brought out of the abominal wound. A large rubber drainage tube was placed in the suprapubic opening.

During the first twenty-four hours there was very little urine secreted and the patient showed signs of uremia (drowsiness and hiccough). This was relieved by infusions of salt solution. The bladder was irrigated twice daily with warm boric solution. The recovery was uneventful; the tube was removed on the ninth day, micturition commenced on the seventh, and the bladder was completely closed on the seventeenth. At this time he voided every three hours without the slightest difficulty, pain or discomfort. There were only 50 cc. of residual urine. He left the hospital on the twentieth day. Since then he has gained in weight, his general health has become excellent and he has had no local discomfort.

An examination one year afterwards shows that he is voiding perfectly normally every three hours during the day, is not disturbed at night; there is no residual urine, and the voided specimen is entirely clear.

Case 2—The patient is aged 52. Family history negative.

Personal history. Has had no severe diseases; the general health has always been excellent. Twenty years ago he had a mild specific urethritis; no complications, no sequelæ.

Present Illness.—Three years ago he began to suffer from difficult micturition. After three months he was compelled to resort to a catheter every eight hours; neither a silk nor soft rubber catheter could be in-

troduced, so that a metal instrument had to be employed.

Examination.—A strong robust individual; heart, lungs and abdomen negative; external genitalia negative; prostate not very much enlarged; both lobes firm and regular, but not hard; the middle lobe can be palpated; on the introduction of the metal catheter the middle lobe can be felt extending well into the bladder.

The cystoscope could not be introduced.

Urinalysis.—Acid; 1018, cloudy, distinct trace of albumin, no sugar, no blood. Microscopically: pus cells in abundance, bacteria, bacilli and cocci in profusion; no casts.

Suprapubic Prostatectomy.—(Dr. Finney). Ether. Through a suprapubic opening an incision three-fourths of an inch long was made through the floor of the bladder over the point of greatest prominence. The enucleation was made rapidly and without difficulty. A small iodoform drain was inserted into the prostatic cavity and the other end brought out of the suprapubic wound; a rubber tube was employed in the suprapubic wound. The gauze drain was removed after twelve hours. The bladder was irrigated twice daily; there were no complications; the tube was removed on the seventh day and the patient began to void on the ninth; the suprapubic wound was closed on the eighteenth day and the patient left the hospital on the twenty-first day. At this time he was voiding all his urine without the least difficulty and had no local discomfort whatsoever. I have heard from him from time to time and his bladder condition has remained perfect.

Case 3.—The following case is of more than ordinary interest on account of the many complications which presented themselves.

Patient aged 54. Family history negative, except that his father suffered and died from the effects of an enlarged prostate.

Personal History.—Specific urethritis at 25; otherwise he has had no diseases.

Present Illness.—Five years ago he began to have difficulty in micturition and for the last three years has had to use the catheter three or four times daily; occasionally he has voided a little urine; his condition gradually grew worse; his pain grew greater and the introduction of the catheter became more difficult. A small amount of water in the bladder caused great distress.

Examination.—Large, robust, well preserved man, good color; heart and lungs negative, kidneys not palpable, abdominal organs negative; arteries slightly atheromatous; pulse 84, somewhat irregular; external genitalia normal. The prostate is very much enlarged and is about the size of a small orange; both lobes are implicated; as a whole the gland is fairly smooth and soft, in places feeling almost boggy; no enlargement of the middle lobe can be made out. By massage a quantity of pus was expressed, which showed staphylococci, but no diplococci.

Cystoscopic Examination.—The prostate projects into the bladder in the form of an irregular collar. There is no enlargement of the middle lobe. Behind the gland the bladder forms a kind of a pocket, in which there can be discovered an irregular, rough, mulberry-like oxalate stone, the size of an almond. The bladder mucosa everywhere is much infected, has lost its lustre and is covered with flakes of fibrin. The ureteral orifices look normal.

A combined perineal and suprapubic operation was decided upon. An incision in the form of an inverted Y was made in the perineum. The gland was very readily exposed. A suprapubic opening was then made, the stone removed and the hand inserted so as to press the gland well down into the perineal wound. The gland was very readily enucleated through the perineal wound. After its removal I could feel an irregular prominence in the lower part of the vesical neck, but I supposed that it was a protrusion of the mucous membrane which had been produced by the prostate and that it would adjust itself as the wound healed. The perineal wound was packed with iodoform gauze and a large rubber tube inserted in the suprapubic opening. Both the suprapubic and the perineal wound rapidly healed, but the patient was still unable to void any urine. At his request nothing further was done, and he was allowed to go home. On the second day after leaving he had a very large hemorrhage into the bladder.

He returned as soon as possible, and I did a second suprapubic operation. The bladder was distended with a large blood clot and on its removal there was evidence of fresh bleeding, but the base of the bladder was so deep that it was not possible to see the exact spot. His general condition being poor, no time was wasted in making an examination, and the bladder was thoroughly irrigated with hot salt solution and packed with iodoform gauze. The bleeding stopped immediately. The gauze was removed on the second day; on the fourth day the cystoscope was introduced through the suprapubic wound and a small papilloma about the size of the index finger was discovered on the lower margin of the internal orifice of the urethra. On the day following this was excised. The wound readily healed and the patient in a short time began to void through the urethra. Three

weeks later the bladder wound had entirely closed and the patient voided all his urine in a normal manner.

One month after his return home he developed an abscess in the perineal region, which discharged a large quantity of pus and for some time afterwards most of the urine passed through this fistula. This remained open for sometime and the outside became covered with an anemic, weak-looking granulation tissue. Under chloroform the wound was thoroughly curetted and packed with iodoform gauze. After this it healed readily, but did not entirely close, so that at the present time there is a very small sinus, which during micturition allows 10 or 15 drops of urine to escape. The patient's general health is excellent; his weight is more than at any time in the past 15 years. Micturition is without difficulty; every three or four hours during the day and once or twice during the night. The urine is nearly clear.

Treatment of Bradycardia.—Josue (La Quinzaine therapeutique), calls attention to the fact that the condition is produced by the failure of certain contractions of the auricles to extend to the ventricles. In fact, the pulsations observed in the jugular veins may be two or three times as frequent as the arterial impulses felt at the wrist. This defective propagation of the systolic wave has been found in two cases examined by Schmoll to be due to destructive lesions of the bundle of muscular fibres, described by His, Junior, which extends from the posterior wall of the right auricle downward to be inserted in the ventricular sæptum. His and Graupner have shown experimentally in dogs that when this bundle of muscular fibres is cut the auricles and ventricles beat independently of each other. Clinically, in addition to bradycardia, there are observed nervous symptoms, such as vertigo, syncope, headache, or even epileptiform convulsions. The attacks may be excited by fatigue, worry, or overwork. The condition is more common in men than in women, and especially it occurs with age. Arterial atheroma, lesions of the bulb, or of the pneumogastrics, have been cited as causes of this syndrome. Lesions of the myocardium and renal insufficiency are also suggested. In the treatment, hygienic measures are important. The patient should avoid all fatigue, excitement, and emotion, and lead as quiet a life as possible. The diet should be principally of milk, with very little meat. Spices, sauces, fish and shell-fish, and fruits are forbidden. Autointoxication by the intestinal canal is thus diminished as much as possible. If the patient has arteriosclerosis, potassium iodide is prescribed in small doses (0.50 to 1 gramme daily), which diminishes the viscosity of the blood. If the arterial tension is increased, small doses of nitroglycerin may be given three times a day. If the kidneys are not active and the urine is diminished in quantity, no time is lost in putting the patient strictly upon a milk diet. When an attack is impending the patient may inhale a few drops of amyl nitrate, in order to bring about vasodilatation. Chauffard has suggested the use of atropine hypodermically, which paralyzes the intracardiac terminations of the pneumogastric nerve. In case of impending heart failure by asystole, hypodermic injections of sparteine sulphate may be administered; if there is marked arhythmia, subcutaneous injections of camphorated oil or of caffeine may be given. But under no circumstances should digitalis be used for these cases; it is absolutely contraindicated in the syndrome of Stokes-Adams, even during the period of asystole. To give digitalis to these patients is to expose them to grave accidents or even sudden death.

Appendicitis in Suckling Infants.—Kirmisson and Guimbellot (Rev. de Chir.) report a case of appendicitis occurring in an eleven months old infant, and terminating fatally after operative intervention had been resorted to. This case is made the basis of a report of twenty-six other instances of appendicitis occurring during the first and second years of life. A study of these twenty-six cases showed that there were two distinct modes of onset of the disease. In one set of cases the onset was insidious, resembling an enterocolitis, whereas in the other set the attack started with fever, vomiting, and rapid pulse.

Of the twenty-six cases reported, nine occurred during the first year of life, and seventeen during the second year. Nineteen patients died and seven recovered. All the infants attacked before their second year died. Seven of the one-year infants and twelve of the two-year infants were operated on. The authors conclude that appendicitis is not so rare during the first two years of life as was formerly supposed. Those cases with a sudden sharp onset offer a very grave prognosis and the only cases that have recovered are those that were operated upon in the interval. The greatest obstacle in combating the disease is the difficulty of establishing a diagnosis, owing to the impossibility of questioning the patients.

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THE CLINICAL IMPORTANCE OF INJURIES OF THE BIRTH-CANAL

It is, of course, universally known that the mechanical injuries occuring during parturition—the laceration of the canal—may be productive of serious results, not only evidenced by local symptoms, but often shown by profound systemic disturbance both direct and reflex.

In spite of this common knowledge too much stress cannot be laid upon the necessity for constant watchfulness in preventing these too common injuries, and in properly correcting them, if perchance they should occur.

Happily, neglected injuries of childbirth are continually growing more scarce. The more general employment of skilled medical attention on the part of woman who, but a few decades ago, would have depended upon the rather dubious ministrations of a midwife, together with the emphasis laid upon this subject by our teachers of gynecology and obstetrics, has greatly reduced the prevalance of such conditions.

Primary repair of the perineum immediately after the occurence of the injury is now practically routine. The question of primary repair of the lacerated cervix is, however, as yet unsettled. Some observers claim to have obtained excellent results from this practice but the large majority of practioners do not perform the operation.

While it is unquestionably true that many good results are obtained, the procedure hardly seems logical. To attempt apposition and healing, by first intention, of tissue which is so edematous and distorted as that of the parturient cervix, seems of doubtful utility to say the least.

In this connection the point may be made that in certain cases where the perineum has been primarily repaired and the cervix left untouched, the patient may latter develop reflex nervous symptoms, the diagnosis of which is rendered uncertain by the physician taking it for granted that since the perineum was repaired, the torn cervix must, of necessity, have become spontaneously healed.

Many such cases are yearly seen in gynecological clinics; the perineum well built up, but a gaping, eroded cervical opening causing the familiar symptom complex.

That general or reflex symptoms may be caused by lacerations of the cervix and perineum, more especially the former, has frequently been questioned, but upon study of the subject, it can hardly be disputed that such effects do occur.

Thus neuralgia may be present in any part of the body, thought it is usually situated in the pelvis or the groin. Nausea and vomiting, marked neurasthenia, catalepsy, and even acute mania, may result. To quote Penrose, the pelvic focus of irritation is constantly wearing and exhausting nervous energy.

The local symptoms need not be mentioned, they being the natural and indeed inevitable result of the laceration of tissue without union,

Again the possibility, not to say probability of cancer developing in the cicatricial tissure of an old tear of the cervix, should be continually borne in mind. This whole questing is most effectually disposed of by Sinclair in an address before the British Medical Association, which he closes in the following words.

"Cancer of the cervix uteri occurs almost exclusively among the poor the chronically overworked, and underfed, among women poor, prolific, harassed, worried, drained by lactation. The fissures of the cervix, neglected lacerations, tissue changes in the cervix from flexions, irritations from venereal diseases, remnants of puerpeal sepsis, affecting the cervix, enter into the causation of cancer; I have myself no doubt whatever. There is no time to argue the question, but each expression here used embodies an opinion and has the foundation of a thesis which I am prepared to maintain and defend".

It is again to be said, therefore, that laceration of the birth canal are serious injuries and that by their neglect and nonrepair, the life of the patient may be rendered miserable or may even be brought to a premature close.

THE SMALL MEDICAL SCHOOL.

Some one has said in regard to the small medical college that the danger is that they will not grow big. Another has remarked that the real danger is that they will. Certainly it is to be hoped that the small medical school will remain so. In the large schools the average student is merely a nonentity. He learns if he can and wishes to; individuality is lost. His teachers know little of him and care less; the students are too numerous for the teacher to come into close relationship with his pupils. Individual interest and instruction are things unknown and unthought of. There are hundreds of students who will tell you that after four years spent in a great school

when he comes up for a final oral examination, the professer will inquire his name. The majority of students require and need some sympathy on the part of their teachers to inspire him to his best efforts. Too often he does not get it. He comes and goes, one of the crowd, getting what he can and if he doesn't get all he might it makes no difference. These ideas are suggested upon contrasting the great schools, in some of the large cities like New York, and the small school, such as we find in our own State. True the names of the teachers in the latter have not been sounded abroad throughout the length and breadth of the land. But the student at least knows. A closer bond of sympathy with a common purpose springs him up which brings out what is best in the student. That after all is the chief consideration.

The student becomes familiar with and close to the work going on, Instead of sitting on the high seat of an amphitheatrs looking down on the back of some far away demonstrator and seeing nothing of what is supposed to be going on before his eyes, he actually sees every detail of an operation, every physical sign of a clinical patient, every structure of an anatomical subject.

There are practical ideas and are worth considering. There are right here at home opportunities offered in the way of medical training which should prove alluring to the prospective medical student. The North Carolina Medical College has almost completed a most commodious new building in Charlotte which will be thoroughly equipped in every detail. The laboratories will give splendid opportunity for special work in the various branches. A city of forty thousand inhabitants furnishes clinical material in abundance. The faculty is composed of men of high professional abilities, special training, and experience as teachers. With the beginning of the ensuing scholastic year the department which has been maintained at Davidson, where the school originated, will be moved to Charlotte. With new life, new buildings and new impetus for effort the school has before it a most favorable outlook for a bright future.

DR. JAMES CARROLL.

The Journal is ever ready to recognize true worth and delights to honor those who are deserving. It is an entirely praiseworthy spirit which prompts the effort to incite Congress to a proper recognition of the services of Dr. James Corroll to his country. Too frequently it happens that the medical profession and medical journals are slow to accord the proper recognition of unselfish devotion to the cause of science and achievements resulting therefrom. *Postmortem* honors, memorials and monuments are proper enough, but for a great service to humanity a man deserves commensurate reward. It is only fitting that the Congress of our Nation should accord to Dr. Carroll due recognition for his work, if for no other reason than because of the important part he took in the investigations instituted by the U. S. Yellow Fever Commission, of which he was a member. Voluntarily submitting to the bite of an infected mosquito, facing the probability of death from the dread disease, he displayed a heroism unsurpassed in the annals of the brave.

Dr. Carroll has been continuously in the service of the army since 1874. He graduated in medicine from the University of Maryland in 1891, after which his scientific work was more or less varied till the year 1900 when associated with Drs. Reed, Lazear and Agramonte he was detailed to study infectious diseases in the Island of Cuba. It was as a member of this board and during the course of their experiments that he voluntarily submitted to the bite of an infected mosquito and was taken sick three days later—the first case of experimental yellow fever. By this one act of bravery he gave to man the knowledge with which to control the dread scourge. Subsequent to this he was engaged in the experimental duties of the Board until March, 1904. Dr. Carroll has been a fertile writer on the subject of yellow fever. This has been the great achievement of his life, and for it he deserves not only the unstinted praise and admiration of his professional brethren, but also a suitable reward and recognition from the whole nation. So remis have his countrymen proven that it remained for a foreign medical journal to first suggest him for a share of the Nobel prize. We quote from an editorial appearing in the "Medical Record" of February 9, 1907: "It must be distinctly understood that the medical profession holds him in high esteem also for his achievements in scientific research, which have been numerous and preeminently valuable. It admires him, too, for his having raised himself from the position of an enlisted man to that of a teacher of scientific men and to that of a discoverer of great truths of medicine. The surgeon general of the army can doubtless suggest some suitable measure for testifying to the general appreciation of Dr. Carroll's services and at the same time securing their continuance, which, as we pointed out in our former article, might not be accomplished by retiring him with the rank of Major. Such retirement indeed seems quite inadequate unless it is accompanied by some

further provision. We think Congress may be trusted to act generously in Dr. Carroll's case."

The Journal of the A. M. A. has recently called attention to the prevalent misuse of certain words. If one stops a moment to reflect, one will realize how frequently one hears such words as "case" and "temperature" carelessly employed not only by laymen, in whom perhaps it is a less glaring mistake, but also by professional nurses and by physicians. It is perfectly correct to speak of a patient's temperature, but so often is the question heard: "Has he any temperature?" meaning "Has he fever?" Another word to which the Journal calls attention is "operated." This misapplication of this word is perhaps not common in the South. We at least have not heard it employed without the qualifying preposition. The editor says: "When a surgeon says he "operated a patient" he does not want to be taken literally; he does not mean to have us infer that he "worked a patient." "Those who a year ago were using "operate" as a transitive verb are now making it serve as an adjective and telling us about "operated" patients." We merely wish to sound a note of warning against a growing tendency toward careless use of such words.

MATERNAL IMPRESSIONS AND FETAL MALFORMATIONS.

As far back as authentic records extend and even beyond the time when historical fact fades out into myth and tradition, belief in the supernatural has possessed the mind of man. A concrete example of this is to be observed in the ancient theory of the effect of maternal impressions on the features. Even today when the light of scientific knowledge should illumine the minds at least of our writers on obstetrics, one finds here and there remnants of mediaeval superstition which modern reason has not succeeded in obliterating. One half the text books on Obstetrics written in America are unable to throw off this "sewing circle science" as one writer characterizes it.

It is apparently a fact that few call into question the theory of maternal impressions; they seem to consider it perfectly adequate to account for any and all physical and psychic defects. If one takes the trouble to ask questions, dozens of examples will be cited in which some shock or fright experienced by a pregnant woman is followed by the birth of a child with a defect, which by more or less stretching of the imagination is said to resemble the cause of the impression on the mother. They say the defect follows the maternal fright or shock, therefore it is the result of the impression on the maternal nervous mechanism. Herein lies the fallacy of the belief. *Post hoc ergo propter hoc* is the one argument upon which the theory rests, and to the lay mind this reasoning is entirely adequate. But here is where the reasoning falls down. No account is taken by the unscientific mind of the thousands of instances in which after a profound maternal shock during pregnancy no "marks" are found in spite of the fact that they are confidently expected. Again there are hundreds of cases of defect in the child in which the mother can recall absolutely no shock or impression to which the mark could be credited.

The maternal impressionist makes no attempt to account for the innumerable congenital anomalies and defects which occur in organs of which laymen have no knowledge. These are seen by thousands in dissecting rooms.

In the very lowest forms of life malformations are observed. "There is not a single malformation known to the human species that has not a corresponding malformation in the lower animals, both wild and domesticated. Analogous malformations also appear in the vegetable kingdom where single and double monsters abound, developments which result from arrested, defective or excessive formative energy." It is known that structural aberations originate very early in intrauterine development, not only, in many cases, long before the woman is aware of her condition but practically always long before the maternal mental impression to which the abnormality is ascribed takes place.

Moreover, it is well known that there is no relation of contiguity between mother and fetus, and there is absolutely no communication between the nervous systems of the two. Dr. E. T. Shelby, of Atchison, Kan., whom we have quoted in the above, says: "Cases of congenital deformity which should receive careful scientific investigation afford only an excuse for idle speculation concerning the kind of mental processes the mother must have experienced in order to produce a so-called fetal accident."

ETIOLOGY OF HERPES ZOSTER.

Herpes Zoster is not a very uncommon affection. Stelwagon says it constitutes 1 to 1.5 per cent. of all skin cases; Crocker gives 6 per 1000; H. Head found it to be 1 in 418 medical cases of all kinds. Statistics emphasize the fact of the prevalence of the disease in the young, being probably most frequent between the ages of ten and thirty. Three-fourths of Crocker's and Head's cases were under twenty. Old age does not seem to be a factor as regards frequency, but as regards severity it certainly is. It is more

frequent during the spring and winter months, especially during damp, changeable weather. Sex appears to have little influence. Harrison says the majority of cases are right sided. The opinion is pretty generally held that malaria is a frequent cause. Atmospheric changes, exposure to cold and wet, sudden chilling and traumatism are mentioned by various authorities as causative. Hutchison, Crocker, Neilson and many others find an etiological relationship, in persons taking arsenic, between shingles and this drug. Since arsenic acts on the peripheral nerve ends, and peripheral neuritis is one of the symptoms of arsenical poisoning the relationship is not inexplicable. They add, however, that some exciting cause, such as a chill, is perhaps also necessary to determine an attack. Erb and Landouzy regard it as an acute specific and infectious disease, which belief is supported by the following: It generally occurs in small epidemics, recurring irregularly, but especially in spring and summer; it is very unusual for a person to have a second attack; various epidemics exhibit various types, some in which all the cases are slight, while in others they are all severe; the disease runs a fairly definite course. Kaposi gives support to this view, but presupposes a toxic influence on the nerve centers. Stelwagon says that he believes that this theory must be accepted as probable. But there are many sporadic cases, after these groups of cases are accepted, which are traceable to a definite cause. Infective influence should therefore rank only as one of the causative factors.

Crocker says severe mental emotion has appeared to be the exciting cause in a good many cases. Frequently it occurs in cerebrospinal meningitis and also in other forms of meningitis in which cases it is usually bilateral. It is said to be more common in non-tubercular meningitis. Charcot, Fournier and Buzzard say it is not infrequent in ataxics.

Herpes Zoster has been observed in several instances as the result of contusion or other lesion of terminal nerve filaments: on the cheek and eyelids after a blow, in the lumbo-abdominal region after a strain. Pernet, Gaucher and Bernard report cases following teeth extraction. Buckley and Jewell believe that it may arise from reflex irritation from functional or organic disease of other organs.

Syphilis has been known to be the exciting cause, and when so produced the eruption of vesicles is bilateral (Moore). Barensprung and Charcot conclude that: 1. Inflammation of spinal ganglia, anatomically characterized by a well-marked vascular injection and a proliferation of the perineurium, without lesion of nutrition, produces in the portion of the skin which receives innervation from the parts affected a special lesion of the nature of Zoster. 2. The neuralgia which accompanies or precedes the eruption is the result of excitation of the sensitive nerve-filaments passing through the ganglion. 3. The spinal ganglia contain the trophic nerve-filaments of the skin.

Zoster appear to be due to disease of the ganglionic system more often than dependent on affections of the spinal cord. As stated above it frequently occurs as a reflex neurosis.

THE OPSONIC THEORY.

The Medical Press throughout the world is discussing the work of Sir Almroth Edward Wright, who has perhaps made the most wonderful discovery of recent years. We venture the opinion that the 20th century will see a revolution in the treatment of disease. Every day almost do we hear of new strides made in serum therapy, vaccination and protective inoculations. Years ago Metchnikoff advanced the theory of Phagocytosis. He believed the leucocytes to be all powerful and gave the fluid elements of the blood only an indifferent function. Wright, after many careful and painstaking experiments, finds the leucocytes powerless to fight bacteria without the help of certain substances contained in the plasma of the blood. These ingredients which he has named opsonins from *opsono*, "I prepare for dinner," aid phagocytosis by their inhibiting action on a given micro-organism, i.e., the microbe is by some mysterious process prepared by these opsonius for ingestion by the leucocytes. In a state of health the blood of man contains opsonins for various disease producing microbes and the opsonic content, or as it is called the "opsonic index," is at a normal level. This opsonic power rises and falls. During an infection the opsonic index is low, the substances, which should prepare the invading germs to be destroyed by the leucocytes, are diminished in quantity, or, in other words, the opsonic index is low. If by any means the opsonic power of the blood serum can be increased to or above normal the leucocytes are enabled to overcome the invaders and a cure results. The problem then is to increase the opsonins. That Wright has succeeded in his experiments is certain.

This discovery gives greater promise of successful treatment of diseases hitherto baffling than any other form of serum therapy. While the work is yet in rather a crude stage, it has nevertheless opened up a field which is limitless in its possibilities.

Ingenious methods of measuring the opsonic power of the blood have been devised but the difficulties to be overcome in making the methods practicable are great. However, with the wide-spread interest which has sprung up among scientific workers throughout the world it is only to be expected that much will be accomplished along the line of perfecting "opsonic therapy." Nothing very definite seems yet to be known concerning the constitution of opsonins. Ross thus summarizes our knowledge:

"1. Opsonins act by chemically uniting with the invading bacteria, and so altering them that the leucocytes are able to phagocyte the bacteria and destroy them. It is important to remember that these substances do not stimulate or otherwise effect the leucocytes.

"2. It is probable that there are present many varieties of opsonins in the blood plasma, each having to do with combatting a particular kind of microbic invasion.

"3. Opsonins have been shown to be distinct from other bacteriotropic substances, such as the bacteriolysins, the agglutinins, and the antitoxins."

Simon, Lamor and Bispham from experiments conclude that opsonins are not dialysable, that they are intimately associated with the globulins. These investigators show that opsonius can be in part or entirely removed from the blood by various substances in a manner analogous to the various ferments. They believe that specific opsonins do not exist in the plasma, which view is sharply opposed to that held by Wright and his associates. The above mentioned investigators suggest the possibility that the opsonins may be a constant quantity and that the number of organisms which is taken up by a cell is influenced by a second factor which may be variable. What this second factor is, they do not say. Wright and his followers, on the other hand, believe that the opsonic power is variable. On the whole opsonic therapy promises much, but until more extended observations are available the use of vaccines will be considered by the scientific world as unsettled and uncertain.

Review of Southern Medical Literature

The Louisville Monthly Journal of Medicine and Surgery, January, 1907.

The Use of Iodine in Surgery.—Dr. Black says that iodine was among the first drugs used by the surgeon. It has been displaced by the antiseptics advocated by Lister and his followers, namely: carbolic acid and corrosive sublimate, and its use is practically confined to painting sprained joints and inflamed glands. In fact the author believes that the majority of surgeons never use it and consider any one who advocates its use an "old timer." When the author was in Professor Kochers clinic in 1900 at Berne a boy suffering with an encephalitis following a neglected wound of the skull was brought before the class. The infection was shown to be streptococcic. Kocher swabbed the edges of the wound with tincture of iodine, remarking that it was one of the best agents to be used in such conditions. Since that time the author has been accustomed to use the tincture of iodine in selected cases and has had such good results with it that he wishes to call attention to its merits. He carries it in his emergency satchel and applies it undiluted to incised, lacerated, or punctured wounds where there is the slightest possibility of infection. It is very diffusible, penetrating easily one-sixteenth of an inch beyond the edges of the wound; it dissolves clots and promotes bleeding, which in itself is one of the surest ways of cleansing a wound; it is stimulating and hastens healing. The author attributes his success in treating Fourth of July blank cartridge accidents, which are so often followed by tetanus, to the use of iodine. Although other practitioners used the usual antiseptics and opened and drained the wound with gauze tetanus often developed in these cases, while the ones under the author's care showed no signs of tetanus and were treated in the same way, except that tincture of iodine was used freely in the wound after it was opened, and then drained in the usual manner. Dirty scalp wound are also treated in the same way. The results in these cases have also been uniformly successful. The tincture of iodine does not destroy tissue, but stimulates the parts, so that it can be used on suspicious wounds of the face.

Texas State Journal of Medicine, Jan. 1907.

Some Developments of Modern Surgery—Dr. Inge believes that among the most important developments of modern surgery probably nothing can claim a higher place than gastric surgery. As has been truthfully said the history of the most successful gastric surgery is not more than two years old. When only a few years ago we heard Dr. Gross advising his class not to deal with the stomach surgically, and contrast this advice with the wonderful achievements of the most skillful operators of today in relieving both acute and chronic gastric ulcer, including malignancy, we have just grounds to feel that we are on the highway to a great and good work. We will not be dis-

couraged because the enthusiastic unskillful amateur operator comes along and seeing the result of good work by his superiors inadvertently does an occasional unnecessary gastroenterostomy for enteroptosis and persistent stomach disorders. It has been demonstrated that gastric and duodenal ulcers that are incurable by medical means are more frequent than we have been led to believe. Surgery offering the only hope for relief from these conditions.

Untold suffering and premature death from hypertrophic prostatis are now relieved by surgery. The army of old men living miserable catheter lives, who only a few years ago could look forward to nothing better, can obtain health and comfort and an extra lease on life through the skillful operator. We will not become discouraged because the mutilator is making a victim of every gray haired man with urinary difficulties, often resulting in recto-vesical fistula incontinence and cicatrical contraction of the vesical neck. We are not unmindful that the true surgeon must look forward to his terminal results rather than count in the successful statistics of cases all those who escape with their lives without relief, and that the importance of accurate diagnosis in surgical cases is not exceeded in other branches in the domain of the science of medicine. The combined skill of the pathologist, internist and surgeon equipped with a practical knowledge of technical anatomy is necessary to meet the demands of this rapidly progressive age in our craft.

Maryland Medical Journal, Jan. 1907.

Some of the Recent Aspects of Quarantine and its Relation to Public Health.—Dr. Rosenau sums up as follows: In our work upon yellow fever last summer at New Orleans it was interesting to note the great difference in the practical work of suppressing this epidemic from similar work in former days. Reed, Carroll and Agramonte had published their epoch-making discovery but five years prior. We know that administration, especially in sanitary matters, lags far behind the sanitary sciences. This conservatism is sometimes proper and usually inevitable. In this instance, therefore, we have no cause for complaint when we review the magnificent and successful work in suppressing the epidemic of yellow fever in New Orleans last summer. In the few years that have elapsed we have learned to no longer fear fomites. This point was brought home very strongly to me when I noticed that the soiled laundry from the yellow fever hospital was daily carried without any precautions to an outside laundry. We can all imagine how such a procedure would have been regarded prior to our exact knowledge on this subject. Another striking instance showing how quickly the public mind had been educated to the true facts concerning the disease came to the author's attention. In the early part of October yellow fever appeared in virulent form in a small Mississippi town. The mother of the first family stricken with the disease died in five days. The head of the household, an intelligent man, fearing that the disease would take other members of his family, and not being able to secure proper nursing and medical attention in the small town in which he lived, came with his six children to New Orleans and went directly to the yellow fever hospital, being convinced, he said, that this well screened hospital, although full of yellow fever patients in all stages of the disease, was the safest place in the epidemic area. Other instances in which patients attacked by yellow fever in boarding houses were removed. When the mosquitoes in the house were destroyed and the patient screened or removed the other boarders did not leave, as they had entire confidence in the fact that although they had been in contact with the sick boarder they were in no danger from further spread of the disease in view of the measures taken.

Virginia Medical Semi-Monthly, Jan. 11, 1907.

A Plea for Castration to Prevent Criminal Assault.—Dr. J. Eivell believes that the law and the lynching as at present applied have fallen short of the mark and the crime is on the increase. What can be done? What can we do? In the good old antebellum days there was no vagrant class of the black race in the South. Forty years of enforced citizenship and free education have utterly failed to better the condition of the negro. He has retrograded physically, morally and mentally, which proves that there is something wrong with the system under which he lives. We cannot blame the negro for this, for his environments have been wholly thrust upon him. But a few generations removed from the savage of 1861-'65 found him possessed of many admirable and even loveable qualities, and the South will not be through building monuments of those historic times until she builds one sacred to the memory of the faithful slaves of the South, in whose care their masters' wives and children were left many months and years; who laid no hand on them except in kindness and were willing at any time to die if needs be in their defense. For the old "uncles" and "aunts" who watched over us and cared for us in childhood there will ever be a warm place

in our hearts; but these are the salt of the earth as far as their own race goes. To the dying off of these old ones I can alone attribute the great increase of crime. The negro race has suffered from its environments since the war. Though many of them can read the vagrant class of both races do not read what is being done in the world. If one hundred were shot or hung in a day for the unmentionable crime but few of that class would ever hear of it; hence shooting or hanging does not deter them. Castrate the criminal, cut off both ears close to his head and turn him loose to go where he will. He will harm no more women, and with this "mark of Cain" on his head he will deter more would-be criminals than would the shooting or hanging of five hundred. Make this the law and also allow the woman to testify in her own home, after which the trial can proceed in the court-room. Give us more astringent and better enforced vagrancy laws.

The Southern Practitioner, Jan. 1907.

Prolapsus Uteri.—Dr. R. E. Fort is of the opinion that ninety-five per cent. of these cases applying for relief are women who have borne many children, hence the continuation of the child-bearing function is not a matter of grave moral necessity. In these cases ventro-fixation is done after the following method: The abdomen is opened, the uterus is brought into the wound and a transverse portion of the uterine peritoneum three-fourths by one inch is removed, exposing the uterine muscle. Now the anterior parietal peritoneum is exsected at the lower angle of the wound one-half inch laterally, removing any connective tissue attached to the posterior fascia of the recti muscles. No 3 chromicized catgut sutures are now introduced through the fascia and reintroduced at the denuded margin of the uterus deep into the muscular tissue, coming out at a given point beyond. Two of these sutures are used and the uterus brought in contact with the fascia, the sutures tied and buried. If the patient has not passed the child-bearing age sterility should be guaranteed by the application of a small silk or linen ligature around each tube. If the woman is of child-bearing age and it is desirable to continue this function the next most efficient supporting operation is the anterior transplanting of the round ligaments after the method of Fergerson. He has at present one case on which he did this operation and has just passed through gestation and delivery without complication. The author concludes by saying that he believes the results of hysterectomy will not be as satisfactory as the results from this series of operations, and as the combined operations are not as grave in comparison with hysterectomy therefore they should always be given the preference, and if done properly there will be no recurrences.

The Atlanta Journal Record of Medicine, January, 1906.

When may we advise Gonorrhoeal Patients to Marry?—Dr. W. L. Champion believes that the urine of a gonorrhoeal patient should be examined each day in a clean, clear glass, with a good light to see if shreds or particles of pus are in the specimen, and to note the improvement or retrograde action of the disease. This test is as important as taking the pulse of a patient with an acute febrile disease. There may be pus in a patient's urine and gonococci absent, but it is the exception when there is a history of gonorrhoea. It is the duty of the physician before dismissing a patient as cured to see that his urine is free of pus, or if pus is present that it does not contain gonococci; that the prostate or seminal vesicles are not involved; that there are no fistulous tracts or enlarged glands about the fraenmun or along the urethra; he should pass a bulbous bougie or urethraemter to note if there are contractions of the urethra. With the endoscope the entire length of the urethra can be inspected to determine if any of the follicles or crypts are diseased. If every practitioner will make it a rule to carefully examine the genitals of this class of patients, feel of the prostate to ascertain if it is sensitive, hard, enlarged, or involved in any manner, strip the vesicles and examine the various secretions under the microscope, which is a simple procedure, it will take only a short time to gain the experience which every man should have who handles cases of this kind, then he can give to his patrons the scientific advice they pay for, and to humanity that which he owes. When a patient's urine is free of pus, when the prostate and seminal vesicles are normal and the periurethral glands are not enlarged, and when the secretions of the vesicles and prostate as well as the discharge set up by a solution of nitrate of silver do not show gonococci present we can state to a gonorrhoeal patient that he may safely marry. The highest and most unselfish duty in our professional work is the prevention of disease and the protection of the innocent. We can in part perform our duty by protecting innocent women from the ravages of this dread disease and lessening the number of infants soon blind to the world.

Texas Medical Journal, January, 1907.

The Family Physician.—Dr. D. Monroe says the family physician has always occupied a specially peculiar and responsible position in society with reference to its individual members. For he is both the confessional to the home and counselor to the household as well as their medical adviser and hygienic guardian, as his advice is always accepted without question and his judgment is implicity relied upon without criticism. While the lawyer lives and fattens upon the vices and passions of society and grows opulent off the contention and strife of its individual members the physician obtains a bare living for himself and family by binding up their wounds, ministering to their misfortunes and alleviating their sufferings; and when death is inevitable he even smooths the path down the River Styx by mitigating the throes of death. For enduring fame in his chosen profession can only be won through the altruism—"that the welfare of others must be the dominating principle of his life," without thought of his own convenience, ease or comfort. Therefore to be a good physician one must bury selfishness, crush ambition and trust to the hereafter for a retributive justice. Time was but a few years back when the physician was only called upon to heal the sick and cure the afflicted by means of his specific remedies, but within the last decade his relation to society in this particular has very materially changed from the dispenser of his curative remedies to a sanitary guardian and hygienic teacher to those in health by explaining to them how they may escape the pains and sorrows of ill-health by pointing out to them the specific causes of their ailments; and so today this is the physician's broadest field of usefulness to the community and to the country. For knowledge having supplanted empiricism, and quackery being deposed by the science of medicine the medical student of today devotes more time and attention to the scientific and clinical study of etiology than he does to the treatment of disease. So his research in this particular branch of his study has revolutionized the practice of medicine and changed the physician's relation to society and even his duty thereto by adding a new and distinct branch to medicine—Preventive Medicine.

Nashville Journal of Medicine and Surgery, January, 1907.

The Causation and Dietetic Treatment of Rheumatism.—Dr. Brandass points out that the latest and most plausible theory in regard to the cause of rheumatism is ascribed to a microbe which is now believed multiplies in the organism in a manner similar to that of malarial plasmodium (accounting for the successive implantations of the joints and other structures involved) and in other specific processes, such as gonorrhoea, scarlet fever, and septic conditions in which we also have arthritic and endocardial complications and in which the germ goes on multiplying until destroyed by the antitoxin developed naturally and introduced artificially into the system. A close analogy may be traced in the histories of malarial fever and rheumatism. (1) Malarial fever is irregular in type and varies in its course, so is rheumatic fever. (2) Profuse perspirations characterize the course of malarial fevers, as they do that of rheumatic fever. (3) During the course of malarial fever the urine is loaded with urates, so it is in rheumatism. (4) One attack of malarial fever renders the system more liable to its recurrence, the same is true of rheumatic fever. (5) Unless arrested by treatment malarial fevers are apt to have a protracted and uncertain course, the same is true of rheumatism. (6) The course of malarial fever is speedily arrested by large doses of quinine, the course of rheumatism by large doses of salicyl compounds. It is evident that the poison of rheumatism, both in its history and effects on the system, bears a closer analogy to the poison of malarial fevers than to any other morbific agency, and though these poisons are distinct and separate agencies the analogies noted are sufficiently close to indicate the probability of their being allied in nature and in mode of action. It is quite probable that the ptomaines produced by the specific micro-organisms may be the active poison which gives rise to rheumatism. This is a conclusion derived from the fact that from twenty to twenty-two hours elapse from the time of the administration of a germ feeding nitrogenous food before the rheumatic symptoms are brought on or exaggerated. Ptomaines of other micro-organisms may also cause rheumatism.

The Southern Clinic, January, 1907.

The Nostrum Evil.—Dr. J. R. Landers calls attention to the fact that the physician can discourage the use of proprietaries by different means, being careful that attempts to disparage may not have the opposite effect. Recently the writer very effectively destroyed the confidence of a woman in a certain proprietary. This woman asked if we ever used this proprietary, and when informed that we did not she vouchsafed the information that it was a good medicine and had helped her, to which we agreed. Then the formula was taken up and she

was shown the active principles (in our medicine case) of each drug in this proprietary, which she informed us was news to her, as she did not think any one knew its composition. Then we told her we thought when she needed those remedies we would combine them in amounts of each as she needed and better suited to her condition than the fellow in the factory could and when we treated her she would get the drugs needed. If she wanted that combination we could prepare it for her in a nice, convenient, and active form, and give her twice the amount or number of doses for what she paid for the proprietary. This method of acquainting one with proprietaries seemed the most effective of any ever attempted by the writer. But if the physician can by any means convince the laity and will himself steer clear of nostrums the work of counteracting will be very materially aided, and certainly if the physician will understand the action of remedies and supply himself with the very best preparations of active principles there can be no proprietary that can equal his own prescription. First have pure remedies in active form and susceptible of being readily used and put into effect most expeditiously which coupled with a good practical understanding of the action and utility will confer on the user a confidence in their therapeutic resources which will go far toward obviating the supposed need for a proprietary or its use, if not entirely precluding such a possibility.

New Orleans Medical and Surgical Journal, January, 1906.

Mitral and Aortic Insufficiency and Regurgitation.—Dr. E. W. Breazeale regards aortic incompetency as a very grave condition, and is the valvular disease in which sudden death overtakes the patient. The line of treatment differs as widely from mitral insufficiency as the two diseases differ from each other in symptoms and pathology. In one we find a weak, feeble pulse; in the other a bounding high tension one. In one the integrity of the walls of the arteries is preserved; in the other sclerotic changes have taken place. Digitalis in one strengthens, tones, and reinforces a jaded, weak, and feebly acting heart, hence indicated; in the other would goad a violent, hypertrophied, over-acting heart to destruction. We should use caution and not prescribe digitalis indiscriminately, because without due consideration a death may result clearly chargeable to us. In mitral insufficiency treat the engorged system. Though we cannot hope to cure we can give relief for a time. In aortic regurgitation we have distinctly contrary condition, therefore prescribe rest absolute, rest in the recumbent position. This alone will reduce the pulsations 10 to 20 beats a minute. Give drugs whose actions we might expect to counteract the cause producing the trouble. If due to muscle strain where a valve leaflet is torn reduce the pulsations and enjoin quiet. To this end veratrum viride is our remedy combined with such tonics as strychnine and arsenic. If due to syphilis where we find the sclerotic changes then our mercury and potassium iodide serves us well. Combine this with tonics and in both conditions put the patient to bed until the symptoms are ameliorated. So outline his habits as not to subject him to violent exercise. Avoid all stimulants and excitements and prevail upon him to live as smooth and easy a life as is compatible with the condition that prevails.

The American Practitioner and News, January, 1906.

Diagnosis of Digestive Disorders.—Dr. J. J. Moren, under the heading of Nervous Indigestion, says this may mean anything from a bad lobster to a bunch of hemorrhoids. The laity has caught on to the term and the aftermath or the next day is spoken of as a nervous indigestion. The writer also believes that the physician often uses the term when other conditions exist. Unfortunately considering the difficulty from location and variable accuracy of our diagnostic means one is partly excusable for an error in diagnosis. If after a careful examination one finds no evidence of a disease or mechanical obstruction one is justified in a diagnosis of functional indigestion. A functional disease is an expression of a deficient over-action or perversion of a normal function occurring without evidence of a structural change. Hence one may have decreased or increased Hcl hyperaesthesia, etc., of the stomach arising from an abnormal nerve state. A good example is shown in the following case: Mr. T.; age 50; who suffered for some time and took all kinds of digestives. The principal symptoms were pressure fullness almost constantly—had no relation to taking food. In fact worse when the stomach was empty. No flatulency, bowels regular, sleep fine, appetite uncertain. She has a great deal to worry her, though she remains cheerful. No test meal was used. However, author suspected hyperaesthesia. No evidence of organic disease of any kind could be found. Good sleep, regular bowels, with inconsistency of the other symptoms formed the basis for diagnosis of gastric hyperaesthesia. Another typical form is that of hyperchlorhydria. These cases, as a rule, present a picture of irritable digestion dependent up-

on their nervous state. Often when they are happy and everything goes well, likewise their digestion; when they are troubled indigestion results. However, one will meet with cases that persist and remain the same. These are the cases that cause trouble, ulcer, obstruction of pylorus, etc. The simple, uncomplicated cases retain their nutrition, even if they do lose flesh from a restricted diet.

Virginia Medical Semi-Monthly, Jan. 25, 1907.

Collapsed Alae Nasi and its Correction.—Dr. D. D. Willcox says that in attempting to correct this trouble with the graduated perforated metal tubes it is seldom we can get our patients to put up with the annoyance and inconvenience which the tubes cause. Any rhinologist who thinks because of his patient's apparent improvement while under his care for a month or more is cured need not be surprised when casually visiting his brother rhinologist to find his patient quietly awaiting his turn. He has sought other advice, because the first specialist has done him no good. On the other hand he has caused him restless nights and days, ulcerations, excoriations, and a foul discharge by the use of the graduated metal tubes. The correction of this simple defect should not in ordinary cases require more than ten minutes. Apply a 4 per cent. solution of cocaine beneath the inferior turbinate bone along the outer floor for a distance of one inch and with a sharp cataract knife passed into the cavity the full length of the blade divide the tissue to the bony wall, ending the incision just after it has severed the normal construction in the vestibule where the skin and mucous membrane meet. This having been done take some antiseptic powdered gauze and pack into the gaping wound for forty-eight hours and then remove it, leaving the wound to heal from the bottom of its own accord. The result will be immediate and permanent if done in the proper cases and when the condition demands. The operation simply divides the constricting cartilagenous ring of the vestibule where the skin and mucous membrane meet and allows the fibers of the dilator, nares, anterior and posterior a wider range of action. This also will also be of service when done in conjunction with any of the septum operations for blockage caused by a defected septum.

The cases of true collapsed alae nasi seem to be family affairs, and rarely do you find only one member of a family so affected. In the author's experience it has been more frequent in males than females.

Book Notices.

A Manual of Pathology. By Guthrie McConnell, M. D., Pathologist to the St. Louis Skin and Cancer Hospital and to St. Luke's Hospital, St. Louis, Missouri. 12mo of 523 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Flexible leather, $2.50 net.

The purpose of this volume is not to attempt to take the place of a voluminous text-book on pathology, but that it shall enable the student especially to rapidly acquire the salient points of the subject. To this end the author sought brevity, but has not sacrificed clearness in the exposition of the material.

The student will find that this manual fulfills a need.

Surgical Suggestions. Practical brevities in diagnosis and treatment. By Walter M. Brickner, M. D., Chief Surgical Department Mount Sinai Hospital Dispensary; Editor-in-Chief American Journal of Surgery, New York, and Eli Moschcowitz, M. D., Assistant Physician Mount Sinai Hospital Dispensary; Editorial Associate American Journal of Surgery, New York. New York: Surgery Publishing Company, 92 William St. 1906.

The "Surgical Suggestions" published during the past year in the successive issues of the American Journal of Surgery suggested to the publishers that their arrangement in logical order, and in a concise form, might prove of value. According to the author, these practical brevities make no pretensions to completeness. They are merely observations taken here and there from surgical experiences.

The little book contains sixty pages and is nicely indexed.

Manual of Clinical Chemistry. By A. E. Austin, A. B., M. D., Professor of Medical Chemistry and Toxicology in the Medical Department of Tufts College, Boston. Boston, U. S. A.: D. C. Heath & Company, Publishers. 1907.

According to the author there are three classes of text-books in existence to which instructors must have recourse in teaching chemistry to medical students. First, there are the so-called Medical Chemistries, long in vogue, which are largely encyclopedias containing a brief resume of some things which are of interest to a medical man, without deductions or laws of application, and of many things which can have no practical value, merely burdening the mind of the learner; in conclusion, many of these works contain a very few pages which per-

tain to true animal chemistry. These works mark the transition stage from general or organic and inorganic chemistry to the more modern applied physiological chemistry. They were useful in their time, but the profession has outgrown them since it began to specialize in each branch of medicine. They were of equal value to the physician, the dentist, and the sanitary engineer, but were not adapted to the specific needs of either. Then we have the physiological chemistries, and then the works which form the modern methods of analysis for clinical purposes; thus it may readily be seen that the student must deal in three works in order that he may select what is adapted to his needs. This little book before us combines the practical part of all three above referred to. It ignores all which is not of direct benefit to the medical man. It will be of much value that such a book has been written. It takes the student from the elements of the body, through their various stages of combination, to the finished product—man; it shows how this combination takes place and how its progress is sometimes interrupted. The book has a few very beautiful illustrations, and has 280 pages. It is well illustrated and nicely gotten up.

A Text-Book upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. New (5th) Edition. Octavo volume of 647 pages, fully illustrated, a number in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $3.50 net.

In this edition more new matter has been added, and much that was old and worthless eliminated. The chapters upon infection and immunity, in which subject the advance in knowledge is rapid, have been carefully rewritten, and in a very readable and logical manner. The original plan of limiting the book strictly to the pathogenic bacteria has not been departed from. According to the conception of the author, every well-written text-book must accomplish three purposes; first, that of interesting the reader in the subject with which it deals; second, that of conveying to him all of the essential facts of the subject; and third, that of opening to him the literary sources from which the facts are gleaned. The illustrations are beautiful, and the book in every respect is attractive and valuable.

Atlas and Text-Book of Human Anatomy. By Dr. Johannes Sobotta, Professor of Anatomy in the University of Wurzburg. Edited, with additions, by J. Playfair McMurrich, A. M., Ph. D., Professor of Anatomy at the University of Michigan, Ann Arbor. Vol. I. Bones, Ligaments, Joints and Muscles. Quarto; 258 pages; 320 illustrations; mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $6.00 net; half morocco, $7.00 net.

A distinct service will have been rendered by the preparation for English-speaking students and practitioners of Professor Sobotta's splendid text-book and atlas of anatomy, the first in which multicolor lithography has been employed. The superiority of this method of illustrating an anatomical atlas lies not only in the beauty of the plates, but, what is more important, in their accuracy. The superb half-tones are made from careful photographs, and photographs also form the basis of the multicolor lithographs. The illustrations of the bones do not show the lines of muscle attachments, which latter, however diagrammatic or even disfiguring from an artistic standpoint, are very helpful for the student.

The text of this volume, concise but amply descriptive, has been translated by Dr. W. Hersey Thomas. In the German edition text and atlas are bound separately. We believe their combination will be approved. The Basel anatomical nomenclature was adopted by Sobotta. In this English edition it is also used, but, except in the section on myology, the terms have been largely Anglicized. These names will prove a bit puzzling to the older graduate, but the confusion will not be as great as might at first appear. Indeed, he will probably welcome this effort to encourage a universal anatomical terminology. In those instances where difficulty might be experienced the editor has supplied the older as well as the Basel title.

A Manual of Normal Histology and Organography. By Charles Hill, Ph. D., M. D., Assistant Professor of Histology and Embryology, Northwestern University Medical School, Chicago. 12mo volume of 463 pages, with 312 illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Flexible leather, $2.00 net.

This manual is written in the interest of elementary students. The fundamental facts in histology have therefore been presented in as clear and concise a manner as possible, and theories advanced only to simplify the facts and aid the memory in their retention. The figures have been selected with considerable care and are intended to illustrate the salient points of the text. They are to be studied as carefully as the text, and to further facilitate such a study the descriptive terms are placed on the figures rather than in foot-notes.

The oral cavity deserves more attention than is usually given this subject. Neglect of proper care of teeth is a common failing, and the cause may be traced directly to a lack of knowledge of their structure and function. This chapter has therefore been enlarged.

The illustrations are quite practical and the book is in every respect up-to-date.

Where Humor, Love, and Mystery Prevail.

March Lippincott's Magazine breathes a foretaste of summer in its leading feature, the complete novelette. "The Smuggler" is its title, and the author, Ella Middleton Tybout, has already to her credit several successful full-grown novels, notably "The Wife of the Secretary of State." This newest story does not deal with smugglers and pirates of the past, but with the modern manner of getting jewels into our fair land without asking Uncle Sam's consent. The characters are mightily convincing in their various roles; and her rapid-acting plot makes the most indifferent reader "sit up" until he has devoured the last word.

Ellis Parker Butler has never written anything funnier than "Pat Cronin and the Fore-tellin' Lady." It beats the record of "Pigs is Pigs." A more serious story, of subtlety and originality, is "The Convict Strain," by Edith Robinson. An amusing episode in the domestic life of the newly married is "The Accomplished Mrs. Thompson," by Norval Richardson. Another one of Marion Hill's inimitably humorous sketches of neighborhood types is "The Too-Traveled Kings." Will Levington Comfort's name is associated with the best kinds of Western stories, and his contribution this month, "The Fighting Death," is powerful and clear. "Miss Merriam's Groom," by Harold R. Durant, is a pleasing tale of love and disguise. "The White Passion of the Sea," by a new writer, Nina Spalding Stevens, is a vignette of the sea, which is intensely human and shows promise for its author.

"The American Gentleman," by Minna Thomas Antrim, evidences keen observation; and under an entertaining style in presenting comparisons, there is earnest endeavor to define this rather difficult line. Incidentally, the author demonstrates the difference between a "gent" and the genuine article.

Among the poets appearing this month are Florence Earle Coates, whose verses called "The Lark" are especially attuned to the Easter season, Mary Byerley, Charles Hamilton Musgrove, Fullerton L. Waldo, Grace MacGowan Cooke, and Mary Caldwell Richardson.

The "Walnuts and Wine" department is not a reprint of worn-out jokes, but aims to publish whatever is funny—and fresh.

Work of the General Education Board.

It is not as yet announced how the board will expend the income of the great added fund which it is to receive within the coming month. Undoubtedly the encouragement of good colleges will proceed on a larger scale, and the work for agricultural progress will be more rapidly developed. In view of some trends of comment in the newspapers, it seems timely to say two or three things about the sources and the objects of these colossal gifts for education. In the first place, money is given by the General Education Board only in recognition of useful educational agencies and only upon the condition that applying colleges shall raise from other sources three times as much money as the board gives to them. Thus, the board does not seek to influence or dominate them as their chief benefactor. It aims, rather, to stimulate the efforts of all their natural constituents and to promote their independence. It does not follow because the money has come from Mr. Rockefeller that its acceptance by any college is expected to influence the tone or character of theological or economic teaching. There is not a man connected with the Education Board who does not claim and assert for himself the utmost freedom of speech.—From "The Progress of the World," in the American Monthly Review of Reviews for March.

Abstracts of the Leading articles of the month.

A Contribution to the Study of Myxedema.—Heyn (Arch. fur Psychiatrie) discusses twelve cases of infantile myxedema, seven of which were severe, and the remaining five relatively mild. The patients were almost exclusively little girls. The magority were committed to the asylum as hopeless idiots, presenting deformities of the head, drooping eyelids, a swollen and protruded tongue, scaly pachyderma of the skull, scanty and coarse hair, thickened skin of the face with deep folds and furrows, a senile appearance, an undersized body, with shortened and curved bones of the extremities, marked curvatures of the spinal column, and large, claw-like hands incapable of the finer movements. The thyroid gland was absent on palpation. Intestinal disturbances were almost invariably present. The patients were mentally apathetic, remaining motionless in the same place, and hardly objecting to the prick of a

needle. Instead of speech there were grunting and whining sounds. The children were unable to understand spoken directions addressed to them, and would barely eat on being fed. There was no control of the bladder or rectum. In two typical cases, and two of the less typical ones, the patients died. In the former the thyroid gland was entirely absent. The hypothysis did not present any peculiarities. Death occurred as the result of intercurrent disease.

All these patients, notably in two cases, were considerably improved both psychically and somatically by the following treatment: In the first place, general dietetics in shape of milk or vegetable food; then iodine (Ki) in view of the frequently probable syphilitic origin of the trouble, then thyro-iodine in tablets of. 0 1, beginning with one tablet every other day, then one or two tablets daily. Arsenic was administered in the presence of undesirable side effects. Albuminous substances containing phosphorus were likewise introduced into the system.

An Investigation into the Nature of Adipocere.—Ascarell (Vrtljschr. f. gerichtl. Med.) has had the opportunity of examining three bodies which were found in various stages of saponification, and he utilized them to carry out an investigation, histological and bacteriological, into the nature of the changes produced in this process.

As is well known, the condition of saponification effects a special and characteristic preservation of the body in contradistinction to the usual process of putrefaction, and the author's object was to study the histological changes in the tissues produced by this condition, and also to determine whether or not it was influenced by bacterial agency.

The paper is interesting and accompanied by excellent plates. The chief conclusions are as follows: The histological investigation of the various tissues indicate that the nature of the process of saponification is the same in all of them. In all the organs examined the anatomical structure could still be made out, owing chiefly to the preservation of the connective and elastic tissues. Saponification is characterized by the appearance of a new substance, which gives the reactions of fat and which occupies the spaces left through putrefactive destruction of tissues. Saponification tends to advance from the surface towards the interior of the body and organs. Amongst individual organs, the skin, muscles, stomach, and intestines are those which undergo the change earliest. The most easily saponified tissue is epithelium, while the most resistent are connective and elastic tissues. Saponification is always preceded by a greater or less degree of ordinary putrefaction, which, however, is completely arrested by the production of adipocere.

As regards the bacteriology of the process, nothing positive was determined. Saponification takes place in the presence of such bacteria as are usually present in water and putrefactive processes.

The question as to the origin of the adipocere substance, that is to say, whether it simply represents pre-existing fat or results from a decomposition of albuminoid bodies, or arises from both these sources, Ascarelli does not decide, although he is inclined to the belief that albuminoid decomposition has much to do with it.

The Active Principles of Digitalis.—Huchard (Bulletin general de therapeutique) says that digitaline is the most reliable, and of all the preparations of digitalis it is to be preferred. The writer uses the crystallized digitaline of the French codex, which may be dissolved in oil for injection deeply into the muscle. These injections have the advantage of definite dosage and prompt action. They are rapidly absorbed and avoid the danger of exciting any intolerance of the stomach. They cause very little pain. The author suggests three methods of prescribing digitaline: 1. The massive or large dose, which is also the antiasystolic and diuretic dose. During an attack of asystole he prescribes fifty drops of the solution (1 to 1,000), representing one milligramme of digitaline, to be given in one or two doses in twenty-four hours. In about thirty-six or forty-eight hours an abundant diuresis occurs, with reenforcement of the cardiac contraction, absorption of the œdema, diminution of internal congestion with elimination of the chlorides. If the effects are not deemed sufficient, the remedy may at the end of six days be repeated in the same or in a diminished dose. 2. The small dose, which is also the sedative dose. He gives five to ten drops of the solution (1 to 1,000), or a granule of a quarter of a milligrame, for three or four days. This is to be repeated every three or four weeks. This method is very useful in dyspnœa accompanying mitral stenosis, because it lengthens the disastole and thus permits more blood to flow into the ventricle. 3. The very small dose, which is the cardiotonic or supporting dose. This may be continued for weeks and months if periods of intermission every fifteen or twenty days of one or two weeks is allowed. The dose is three or four drops of the solution (1 to 1,000), or a granule of one-tenth of a milligramme, given once daily. This will give tone to the heart without causing any toxic

symptoms. Owing to its slowness of elimination, a certain quantity remains in the organism, and continues to exercise a toxic action upon the myocardium.

Appendicostomy.—Bennett, in the British Medical Journal, describes a case of ulcerative colitis which was treated by irrigation of the large intestine through the appendix, which was brought to the surface of the abdomen, fixed there, and opened—the operation being termed appendicostomy. The operation is a very simple one and no disadvantage or discomfort follows its performance. A full-size, soft rubber catheter passes down the appendix into the cæcum without the patient being conscious of its presence; no regurgitation or moisture comes from the stump. The sphincter at the cæcal end of the appendix grasps the catheter firmly, and closes completely after its withdrawal. The adventitious opening can be closed with ease and certainty after it has ceased to be of use.

The possibilities of the operation may be considered under four heads: 1. As a means for the treatment of certain conditions of the large and small intestine, such as mucous colitis, dysentery, chronic constipation, ileocæcal intussusception, and ulceration of the colon, syphilitic and otherwise. 2. As a means of treatment of certain forms of intestinal distention, occasionally met with after abdominal operations in very toxic cases and in connection with some acute diseases, *e g.*, pneumonia, which drugs seem powerless to affect, the distention being apparently due to a toxic paresis. 3. As a means of administering nourishment, and an alternative to the rectum for that purpose. Rectal feeding is not infrequently painful, and, in sensitive patients, repulsive. Further, the higher up in the bowels an instrument is introduced, the greater is the proportion absorbed for purposes of nourishment. 4. As a substitute for cæcal colotomy.

Heart Disease.—Saundby (British Medical Journal) gives the treatment of advanced heart disease and asserts, concerning the much debated question of the use of digitalis in aortic disease, that it has not been settled by Foster's discovery that when it slows the heart, the prolongation affects the diastolic period more than the rest of the cardiac cycle, as when the heart's action is slowed from any cause whatever the diastolic period is lengthened disproportionately. In all cases of aortic disease the pulse should beat more quickly than normal in order to keep up the circulation, but so long as digitalis does not reduce its rate below 80, the good effects are as apparent in aortic disease as in other conditions. His experience with strophanthus is that it has practically the same action as digitalis, but is not more manageable or trustworthy. He at one time gave it up from using unsatisfactory preparations but now uses it occasionally when digitalis fails, but knows no indications for giving preference to it. So far as the vasodilators are concerned, erythrol tetranitrate is the drug upon which he now relies to produce a permanent unloading of the weight on the heart. The author has used nitroglycerin for this result, and likes it in solution rather than in tablets, but prefers the erythrol tetranitrate, which has the advantage of lengthened action, the lowering of the pulse tension from a single dose lasting fully four hours, and he is convinced that it can afford relief to patients who derive no benefit from other cardiac remedies. The usual dose of the tetranitrate is one-half grain in a tablet, which he prefers; it should be given every four hours while the patient is awake, and while it may produce headache occasionally, it is rarely so severe that the drug has to be stopped. Sometimes the writer combines it with Nativelle's digitalis, giving the drugs alternately with four hours interval between the doses of each.

Intestinal Antiseptics in Goiter.—McCarrison, in the London Medical Lancet, contributes some observations on the use of the intestinal antiseptics in the treatment of goiter. The cases selected were those in which no secondary changes had taken place. Thymol was the agent employed, and its good effects were at once apparent. Recent cases reacted at once, and in some the enlargement disappeared with extraordinary rapidity, the swelling softening during the first week.

Twenty-five cases were cured, the period ranging from seventeen to sixty days. He gave 30 grains of thymol the first morning, a purge at evening, and 10 grains night and morning, in cachets, thereafter. A 30-grain dose was also given twice a week, followed by a purgative. This is continued without intermission till the patient is cured. No ill effects were observed. Some of these cases had existed more than a year. The beneficial effects of betanaphthol and of hydrofluoric acid he attributes to their intestinal antiseptic powers.

Thymol proved useful in all cases where the swelling was progressing. In old cases the gland swelling subsides leaving the adenomatous growths projecting. Insomnia and the sensation of suffocation were relieved, very markedly and rapidly. He ranks the action of thymol here with that of quinine in malarial spleen. His con-

clusions are:

Goiter is due to an invading organism, infecting the intestine; derived from the soil of infected places; conveyed by drinking water; requires a calcareous soil; transportable by man to suitable new homes; probably emitted with feces; probably has a stage of development outside human bodies; probably destroyed by pure water; requires some moisture; requires a certain temperature; the most susceptible persons suffer first—children; natural immunity develops; workers with soil suffer most; newcomers are quickly affected, in less than a month; is seasonal; disappears when the patient leaves the infected district; is short lived; organically impure water may favor spread; all races suffer; women are more predisposed; fever and emotion predispose; boiling and filtering water do not prevent; domestic animals do not suffer where the reporter resides (Gilgit, India); large communities and groups of houses in infected districts escape; uncertain blood changes occurring suggest parasitic invasions; and finally, the malady is rapidly cured by intestinal antiseptics.

Infective Endocarditis.—Judson ('Arch. of Pediat.) records a case ending in recovery after an illness of over three months. The patient, a boy aged 10 years, was seized with headache, pain in the knees, nausea, and vomiting, followed by chilliness, fever, and a maculo-papular rash. The arthritis spread, and a soft systolic murmur was heard over the precordia at the end of two weeks, with a trace of albuminuria and no splenic enlargement. Salicylates were of no use. The fever ran a typically hectic course, up to 105 degrees F. or more; the spleen became enlarged, and a pure culture of a diplococcus was obtained from the blood. Leucocytosis ranged from 20,000 to 34,800, and anemia was very marked. Edema developed, and for some weeks the boy was extremely ill. On the sixty-fifth day diuresis suddenly set in, and the edema cleared up. This result followed the administration of theocin, in doses of two grains, for five or six days. The fever subsided on the seventy-sixth day. The diagnosis was based on the course of the fever, marked anemia, rash, splenic enlargement, and the diplococcus in the blood. The cardiac muscle was profoundly affected, but the valves escaped with less damage. Embolism, chills, and sweats were absent. Arsenic, iron, and quinine were of little value. Theocin proved a powerful diuretic. Intravenous injections of 3-5 c.c. of 4 per cent. collargol solution on alternate days for twelve days failed and caused increased leucocytosis. When seen six months later the first sound of the heart was indistinct, prolonged, and followed by a faint systolic mitral murmur.

Hereditary Syphilis and Syphilitic Heredity.—Gaston (Ann. de Med. et Chir. Inf.) says that these conditions are often fatal to the descendants, but they act in different ways. Hereditary syphilis produces syphilitic lesions that often kill the infant, or prevent its birth alive. Syphilitic heredity is like any bad heredity and results in degeneracy or dystrophies such as occur from tuberculosis or other diseases in the parents. The roles of the father and mother are about the same as to the production of the malady in the infant and its mortality. The mother has the marked influence in producing dystrophies and degenerations in the child. Mercurial treatment sterilizes syphilis and prevents its transmission to the descendants. Every man or woman having syphilis should be treated for the sake of the children, and should undergo a fresh treatment before marriage and connection, as thus there is hope of obtaining healthy offspring. This is true whether the syphilis is new or of old standing in the patient. Hereditary syphilis shows direct transmission, while syphilitic heredity results in a failure of the normal evolution of the product of conception. The results of hereditary syphilis are always syphilitic lesions, in which spirochæta pallida is found. Syphilitic heredity produces organic or functional troubles of nutrition or development, without any specific character, such as any morbid heredity will determine. Morbid heredity depends on the parents before, at the moment of, and after conception. It is variable in its effects, according as mother or father is diseased. It depends directly on the physical condition of the mother at the time of conception. Hence both parents must be studied, before, at the time of, and after conception to arrive at certain conclusions. Whatever the parents have at the time of conception they transmit to the child; after conception the father cannot transmit anything to the child except through the mother, and there is no direct transmission but a modification of the nutrition in the embryo in the womb. Such is no longer contagion, but congenital morbid heredity. We have heredo-transmission, heredo-contagion and heredo-gestation. We must study first what was the origin of the syphilis, from mother, or father, or conjugal. Mortality of the child is one of the most important indications of parental syphilis; half the pregnancies result in abortion, premature labor or death soon after birth. Syphilis, paternal, maternal or conjugal, is equally fatal to the child, but in different ways at

different periods of the disease. Paternal syphilis at whatever stage, and of whatever virulence, gives mortality in the first generation, but it diminishes with the age of infection and lessened virulence, and is rare when the syphilis is of the nervous system. It affects about one-fourth of the children, and with equal frequency early or late in life. Dystrophies are more frequent in proportion as the disease grows older. Maternal syphilis with a healthy father is grave for the child; all children are affected in some way. When it is ante-conceptional no healthy child is born if treatment is neglected. The child does not live and we know little of its effects. Syphilis of the father produces abortions; that of the mother produces dead-born children and those that die soon after birth. Conjugal syphilis is less destructive than maternal, more so than paternal. Syphilis of the second generation is more difficult to study. There is not a perfect immunity transmitted by the parents. Its mortality is equal whether it be maternal, paternal or conjugal. Syphilitic heredity has no special characteristic that will separate it from other forms of degeneracy. Hereditary syphilis may be prevented by preventing marriage unless the parents have been thoroughly treated and just before the marriage. Such treatment is the safeguard of the family. A syphilitic of three or four years standing who has been regularly treated may hope to have a normal family, after submitting to medical examination to find out his exact condition.

Prolonged Remissions in Tuberculous Meningitis of Children.—Carriere and Lhote ('La Presse Medicale) publish their observations on three cases in the 'Revue de Med.' which prove that if we cannot accept as a reality the definite cure of tubercular meningitis, the existence of prolonged remissions must at least be admitted. In these cases the tubercular meningitis developed at first in the ordinary fashion without any notable peculiarity of etiology or symptoms. Then, instead of presenting all the signs of asphyxia which characterize the last stage, the patients gradually were restored to life; all the symptoms and physical signs lessened; analysis of the cerebrospinal fluid, of which inoculation had confirmed the tuberculous character, showed a less abundance of lymphocytes and an increase of polynuclear cells. In two cases this period of confirmed meningitis lasted one month, in the other seven weeks. The period of remission had a duration of four and a half months, five months, and nine months respectively. At this period a striking fact was noticed: while the bodily condition improved and various symptoms completely disappeared, the psychic condition remained affected. The disposition underwent a notable change, and sadness was the dominant feature; affection was diminished and unaccustomed irritability shown. Suddenly all the symptoms, without known cause or traumatism, became exaggerated; constipation, headache, modification of pulse, etc., reappeared, and after a short prodromic stage, the entire picture of tubercular meningitis was re-formed. This second meningitis—or rather this last attack of meningitis in evolution for some months —resulted in coma and death after a course of a few days. The autopsy in one case showed lesions in two stages of development, some recent, in the shape of yellow granulations, the others old, in the form of large plaques of thickening and of meningeal sclerosis. Apparently, the primitive lesion tended towards sclerosis—that is to say, towards cure—but the cicatrix formed, or in process of formation, remained as an irritant, sealing up the bacillus for a long period, and acting as a starting point for a new acute inflammatory attack. This latter does not appear to be necessarily fatal, and the possibility may thus be conceived of a definite cure of tubercular meningitis, but we must wait for observations and proofs of it as rigorous as those of the authors.

Spontaneous Cure of Congenital Luxation of the Hip of One Side in Certain Cases.—Froelich (Revue d'Orthopedie)says in the course of evolution of a simple case of congenital luxation the hip of the opposite is not infrequently observed to have likewise become dislocated at the end of a few months or years. This may occur whether the condition has been left to itself or whether the originally diseased side has been subjected to treatment. The existence of the trouble has been demonstrated by the author even in cases where the previously normal condition of one articulation had been shown by X-ray examination. This phenomenon has been accounted for by various explanations, such as faulty position of the sound sides during treatment of the diseased hip; the femoral head slipping above the posterior cotyloid rim; subacute arthritis referable to gonorrhoea or osteomyelitis, etc.; also dry infantile arthritis of the hip-joint. If these conditions may be termed almost common-place, this is not one for the opposite observation, namely, the spontaneous cure of congenital luxation of one side, in cases of double luxation. This was observed to be the case in two patients of the author's, little girls of five and seven years of age, respectively. Here

it was found by clinical examination, verified by the X-ray picture, that one of the coxo-femoral articulations was healthy. The gait of the children was that characteristic of unilateral luxation. However, another set of X-ray pictures taken when the children were two years old (one three and the other five years previously), showed in an indisputable and incontrovertible fashion that a double congenital dislocation had been originally present. The afterwards healthy side was likewise dislocated, in the first case a little less than the side where the lesion persisted; whereas, in the second case, the luxation was equally marked on both sides.

The explanation of this spontaneous cure of one luxation, side by side with persistence and increased deformity on the other side, lies in the possible effects of the treatment of the opposite hip upon an as yet normally placed femoral head. Forcible abduction favors the passage of the femoral head above the posterior cotyloid rim. It is readily understood that the opposite effect is produced by abduction, which favors the slipping of the head downwards and inwards. As a matter of fact, in both these observations, the luxated leg was in abduction; and in walking, the opposite leg was forcibly abducted so as to adjust and equalize the two lower limbs. In both these cases of originally double luxation, the deformity developed more rapidly on one side, and the leg of this side took on the position of abduction. The opposite leg was forced to place itself in abduction; and since the femoral head had not yet slipped far away from the cotyloid cavity, it was progressively replaced therein by walking and muscular contraction. In both these cases nature accomplished spontaneously the work done by the surgeon in the cure of congenital luxation of the hip-joint when he places the luxated leg in forcible abduction.

Similar cases of spontaneous cure of congenital hip-joint dislocation have been observed by Kirmisson and by Ollier, but without the anatomical confirmation of the clinical findings by the X-ray pictures.

Moles and Chorioepitheliomata.—Cortiguera (Ann. de. Gyn. d'Obst.) says that up to 1905 literature furnishes us with 260 reported cases of chorioepithelioma. In many cases the tumor was preceded by a vesicular mole, an abortion or a normal labor. There are always found in the chorioepithelioma the tissue of the syncytium, and the cells of Langerhans, and less constantly connective tissue: these are the integral elements of the vesicular mole. At the same time there are many strong reasons why we should not connect the two growths in etiological relation. There are a large number of moles that are not followed by the appearance of a chorioepithelioma, even when they return several times; the cells of the syncytium are also found in men. The microscopic examination of portions of these growths do not enable us to tell whether or not they will take on a malignant activity. The symptoms which would lead to a suspicion of chorioepithelioma are the persistence of metrorrhagia, with the coming on of a cachectic condition and an enlargement of the uterus, with a soft, partially open os, after a mole, an abortion, or a delivery. There may be nodules of the tumor in the vagina, or the os may admit the finger and the growth be left. But there are other cases in which the uterus shows no symptoms, but the tumor appears in another location, the lungs, liver, or other internal organ. The valuable diagnostic points are discovered by intra-uterine palpation and microscopic examination. Not all of these tumors are fatal, some recoveries occurring after operation. According to some authors a preceding endometritis is a causative factor, but this precedes so many other uterine tumors that the author gives very little weight to this theory. The essential lesion must always be the superactivity of the syncytium acting as an irritant on the surrounding tissues. The author has observed eleven moles, and all of these patients have recovered without the occurrence of malignant tumor. He has seen three cases of chorioepithelioma, which have all died as the result of the disease. Every woman who has a mole should be regarded as a possible candidate for chorioepithelioma. The incomplete expulsion of the mole or the placenta should lead to an intra-uterine examination and a complete evacuation. If metrorrhagia persists, curettage and microscopic examination of the fragments are in order. If these have the character of the syncytium a hysterectomy should be done, removing the adnexa and all metastatic nodules. The prognosis is less bad than in case of the other epitheliomata provided that an early operation is possible. It is less grave after a mole than after labor or an abortion.

The Early Diagnosis of Cancer of the Stomach.—Moullin, in the London Medical Lancet, says that medicine is admittedly helpless in the presence of cancer of the stomach, and the only hope at present lies in surgery, which also is of no avail if called to aid too late. The first essential then is early diagnosis. At the outset cancer is a local primary complaint, and excision is possible with primary union and restoration of function, if only the favorable time is

not allowed to pass. When the diagnosis is obvious, when tumor is present, the patient has lost two or three stones in weight, and there is a cachetic look upon his face, it is too late.

Cancer may originate *de novo* or at the site of a chronic ulcer, it is estimated by different observers that an ulcer precedes all the way from 4 to 90 per cent. It is difficult to tell, for in the majority that come to autopsy all signs of ulcer or scar have been obliterated by the growth and the number that originate thus is probably large. Pain and alteration in appetite are in the majority of cases the first symptoms. The pain is due to the increased sensitiveness of the parietal peritoneum due to the hyperemia surrounding the growth and excited by movements of the stomach, hence increased an hour or so after meals. There is also tenderness on pressure, but seldom any superficial hyperesthesia unless there is obstruction at the pylorus. The alteration in appetite is often a distaste for meat and rich articles of diet, in others utter distaste for all food, often some flatulence. Then comes loss of strength and weight; vomiting and hematemesis are important symptoms when present. Digestion leucocytosis, illuminating the stomach, testing absorptive power with K. I. and urine test, bismuth and the X-Ray are interesting, but are of little real use. Test meals and exploratory palpation through an abdominal incision are the only means to be relied upon. Of these the test meal is merely confirmatory, and a negative result is not of the least value, for HCL. may be present with cancer, and therefore lactic acid and the Oppler-Boas bacillus absent; and the reverse may be true in other disorders. Exploratory palpation is then the one reliable means for early diagnosis and in skilled hands involves no more danger than the anesthetic if employed early enough to be of avail before the patient's strength is sapped by incurable disease. The certainty of this method of diagnosis is a question of experience, for taken early enough before the adhesions form, practically all of the stomach except the cardia is palpable, and any chronic ulcer surrounded by such an amount of induration that it is indistinguishable from carcinoma should be dealt with in the same way, excision or gastro-jejunostomy according to indications.

When distaste for food and more or less pain occur together without obvious reason in a middle aged person, who has previously enjoyed good digestion, and when they do not disappear in the course of a week or two under rational treatment, it is necessary to find out definitely the cause, as a suspicion of cancer is warranted.

The Use of Forceps.—Demelin (British Medical Journal) discusses under what circumstances the application of forceps, being apparently indicated, may be deferred or avoided. The author deprecates the present teaching that the forceps are to be used very exceptionally; he considers a good pair of forceps, handled with care, slowly and gently, is an invaluable instrument. Many cases are met with in practice in which it is possible to temporize or even to abstain from their use; there are others in which it is absolutely indicated to save the life of the fetus or mother. presentations of the shoulder or breech call for extraction by the feet, but when the head is fixed or engaged and the uterine muscle is retracted instrumentation is needed. The question whether to wait or to assist is often difficult to decide when there is no danger and labor is normal, only tardy; this occurs usually in primiparæ who have been exhausted by the long period necessary for the dilatation of the os. After twenty to twenty-four hours of labor the pains become few and feeble, and the patient inclines to sleep; if then the fetal heart sounds are normal and there is no sign of meconium in the amniotic fluid, it is wise to allow her to sleep for an hour or two. On awakening give an alcoholic drink, hot, with plenty of sugar in it, since sugar is a good muscular stimulant; follow this with a hot bath and a large dose of sulphate of quinine, and generally expulsive efforts will be reestablished and terminate favorably. Hot douches do not reach the uterine muscle when the head is engaged and low down. When there is complete dilatation and the membranes are still intact, they must be ruptured in an interval between the pains. Some women, although vigorous, are nervous and cowardly when they feel the head on the perineum, cease from expulsive effort, and make no progress, A few whiffs of chloroform are sufficient to encourage the patient and produce the desired result.

In primiparæ, in spite of strong effort, the firm perineum prevents progress; it is permissible to add abdominal expression to the efforts of nature. Mounting upon a chair beside the bed the palms of the hands are placed on the fundus, and when the contractions occur steady pressure is made upon the fetus in the direction of the pelvic outlet, the perineal resistance is thus overcome, and the application of forceps is avoided. In a case in which there is full dilatation of the os and no advance is being made, examination may show the head lying in the transverse or oblique diameter, and not fully flexed. It is possible to assist the head to flex and turn; this is best done during the pains by introducing the

first finger into the vagina; and during the contraction pressing upon the head near the anterior fontanel in such a manner as to promote flexion, or it may be possible to get under the convexity of the occiput and draw it downward, By pressing behind the ear in the direction required rotation is assisted; should the contraction cease before complete rotation is effected, the hand should be retained in position ready for the next pain. Rotation and flexion having been procured delivery will not be long delayed. There should be a limit to the time of waiting after the full dilatation has occurred. In uterine inertia often one may safely wait for five or six hours, but it is unwise to allow the maternal soft parts to be bruised too long between the head and the bony pelvis; there is a risk of edema, lacerations, and possibly of fistula resulting.

When the pains are vigorous and no progress is being made two hours after full dilatation, interference is necessary. Such cases used to be left for ten or twelve hours until the fetal head was increased in size by a hematoma, and the difficulty of delivering resulted in a torn perineum, a vesicovaginal fistula, and infection by lacerations. These fistulæ are now very rarely seen. In deciding whether to wait or to intervene, the position of the head in the cavity is an important point. As long as conditions are favorable it is well to temporize, but when symptoms of urgency arise there should be no hesitation in applying the forceps.

Spirochaeta Pallida.— Buschke and Fischer (Archiv fur Dermatologie und Syphilis,) report in their exhaustive investigation of the spirochaeta pallida in congenital syphilis, the presence of the parasite in enormous quantities; its histological presence in the lumen and walls of blood and lymph-vessels is strong evidence of its etiological nature. The initial and syphilitic lesions may contain the parasite sparingly or in rich numbers. The parasite is most abundant in the periphery of the infiltration and in the neighboring epithelium, both intercellellular and intracellular. It is found in the lymph-vessels of the internal organs and between the connective and elastic tissue fibres. It is often absent in primary chancres, even when the latter are in full development. The author was able to inoculate an ape with virus taken from a tertiary lession, showing that gummata are infectious.

Anterior Colpo-Hysterotomy. — Jung (Deut. med. Woch.) describes this operation and its results. The operations which he deals with were undertaken in the interest of the mother's life, and include five cases of eclampsia, one of severe nephritis with total amaurosis, one of severe non-compensated heart disease, and one of complete impaction of the fetus, which was lying in the transverse position. In the last-named case there was tetanus of the uterus. The os in the case was partly dilated. Unsuccessful attempts had been made outside by the general practitioner to turn the fetus. On admission large doses of morphine and deep anaesthesia failed to relieve the tetanic condition of the uterus, and it was therefore impossible to proceed to perform embryotomy. The mother's condition was extremely bad, and for this reason anterior colpo-hysterotomy was immediately performed. The dead fetus was removed after embryotomy. Of the eight cases, three mothers died, two of eclamptic coma and one with the heart disease, which was complicated by nephritis, of collapse. In all three cases the sutures had held and there was no hemorrhage, as was proved post-mortem.

Of the fetuses, three were delivered alive and well, one was dead and macerated, one was dead and had to be delivered by embryotomy, two were not viable, and one was lost as a direct result of the birth. The last-mentioned case was one of the eclampsia cases. The fetus had its head impacted in a flattened rickety pelvis, with a conjunctiva vera of 8 cm. (three inches). Delivery was conducted with forceps, and a deep depression was produced on the temporal bone. It died a quarter of an hour post-partum.

The operation was carried out as follows: When the vulvar orifice was too small a wide vagino-peritoneum incision was made. After division of the anterior vaginal wall by means of a longitudinal incision, the bladder was easily peeled off in the loose tissue. The anterior uterine wall never offered any difficulty, as long as one remembered not to pull too much on the Collins' forceps which held the edges of the wound apart. On two occasions the vesico-uterine fold was opened, but this did not matter. The child was delivered four times by forceps, three times by version, and once by embryotomy. The author thinks that it is better to turn the fetus, save when the head is too tightly impacted, and believes that he might have been able to save the one fetus had he done this instead of delivering with forceps. Anyway, he regards version as the easier and more elegant proceeding. The placenta was expressed or removed manually immediately after the delivery of the fetus. The suture of the uterus was carried out with continuous catgut sutures, and when the peritoneum had been opened the upper stitches closed this as well. The

bladder was sutured in its place and the anterior vaginal wall was closed with continuous catgut sutures, including the perineum, when this had been incised. The wounds healed smoothly in all cases. The writer says that this operation should only be undertaken in a clinic or hospital, and not at home by the general practitioner, who will not have had sufficient practice in these kind of operations. The safer method for the practitioner is to use the dilator. For any one who has had experience in vaginal operations the procedure is quite easy.

Bilharziosis.—Roux declares that the portal vein, the veins of the pelvis and those of the bladder and of the rectum are the ones in which the bilharzia is most frequently found. It is remarkable that the portal vein contains only young parasites whose sexual activity has not yet begun. This infection is rarely seen in those of the upper class. The blood of these patients has a tendency, according to Goebel, to coagulate rapidly after it is drawn from the blood-vessels. This phenomenon depends upon secretion of the parasite as yet unknown. In regard to treatment prophylaxis is most important. The writer emphasizes the necessity of instructing the inhabitants of Egypt concerning this disease. They should be told of the danger of drinking impure water and of bathing in it. They should also be taught the role which the urine and feces of persons suffering from this disease plays in its propagation. Such instruction would be of inestimable value to the inhabitants of this country.—Le Caducee.

Surgical Treatment of Esophageal Diverticula.—Zesas (British Medical Journal) publishes a collection, which he says is complete, of forty-two cases of esophageal diverticulum treated by free exposure and excision of the sac. In eight of these cases the operation had a fatal result. Primary healing of the esophageal wound was attained in only six cases, a fistula having formed in the other surviving patients, which, however, closed after an interval varying in the different records from four days to sixteen weeks. This frequent failure of primary healing is due, as a rule, to the impossibility of keeping the sutured wound at rest. In some few instances the sutures may be torn away in consequence of vomiting or retching due to the anesthetic; but in most cases the disturbance of the esophageal wound is the result of frequent movements of deglutition which, even if oral feeding be withheld, are likely to result from the passage of saliva and pharyngeal secretion. The question of feeding the patient during the after-treatment is, the author points out, a difficult one, especially in those cases in which the strength of the patient was much reduced before the operation. Feeding by the mouth or nostrils is unsatisfactory, as the tube, if used intermittently, is likely to cause spasms of the esophagus, and if allowed to remain will cause more or less irritation. Rectal feeding in exhausted patients will probably be found quite inadequate.

In discussing the merits of preliminary gastrostomy as a measure of supplying sufficient nourishment to the exhausted patient, and of avoiding irritation of the wounded esophagus, the author states that this operation has been performed successfully in four cases, but that in one of those it failed to prevent the formation of a cervical fistula. While acknowledging the risk of complicating the surgical treatment of esophageal diverticulum by practicing two operations, he is of the opinion that it will in some cases be found very difficult to dispense with gastrostomy. The chief indication of this operation is, it is held, the necessity of an early and abundant supply of nourishing food. As a means of insuring early and complete healing of the esophageal wound, direct gastric feeding cannot be relied upon. The most promising way of overcoming the difficulty is, it is suggested, a careful attention to the suturing of the divided esophageal coats.

Exposure of the Wounded Heart.—Wilms (British Medical Journal) says there is good grounds for asserting that though the much-modified flap method of exposing a wound of the heart will suffice in the large majority of cases in which the anterior wall of this organ is solely involved, this will prove quite inadequate when the surgeon finds it necessary to expose and suture a wound of the posterior surface. A case is referred to of bullet wound of the left ventricle involving both the posterior and the anterior walls of this cavity, in which the author, finding it necessary to enlarge the field of his operation, instead of resecting a portion of the sternum made a long intercostal incision, such as was practiced by Mikulicz in his later intrathoracic operations. The author has been led by the successful results of his case to recommend for the exposure of a supposed wound in the heart a long incision in the fourth and fifth intercostal space, instead of a plastic flap made in the thoracic wall. This incision, which can be supplemented, if necessary, by division of the two costal cartilages near the external margin, gives free access to both surfaces of the heart, and can be performed more promptly and with less hemorrhage. Pneumothorax must, of course,

follow, but the author points out that this complication cannot be avoided in the "flap" operation.

Packing the Nose in Ozaena.—Sondermann (Munchener medizinische Wochenschrift) says that the ordinary means available for use by patients with ozæna, in order to remove the crusts, are inadequate and impracticable. The commonly used method of irrigation is troublesome and is therefore often omitted by the patient, and, in addition, it involves danger of infection of the Eustachian tube and middle ear. The author suggests the following plan, which he has found very successful: The patient is provided with a small bag of very delicate rubber tissue, which is affixed to a detachable tube and rubber bulb. The bag is introduced into the nasal passage in the collapsed condition, and is then inflated by means of the bulb. It applies itself closely to all the irregularities of the wall of the nasal space, and even reaches into the nasopharyngeal space. The air is prevented from escaping by the use of a pinch cock, and the bulb is detached; at the expiration of five or ten minutes the air is allowed to escape and the tampon can easily be removed, carrying with it the crust. The apparatus is kept in water, and by the time it is to be used again the adhering crusts will have separated from it. He suggests the use of this method twice a day during the first week and later once a day.

The Late Results of Cancer Operation.—Steiner (Deutsche Zeitschrift fur Chirurgie) contributes a statistical study bearing upon the late results of cancer operation, basing his figures on the first surgical clinic of the Royal Hungarian Surgical Clinic in Budapest. The regional study is taken up at some length. In summarizing the results he notes that of 150 cases followed for three years 41 per cent. remained free from recurrence; 47 per cent. recurred or died of operation (8.66 per cent.) or of an intercurrent disease.

Sixty-two cases followed for a period of five years from operation showed approximately 42 per cent. of cure, 54 per cent. of recurrence, and a little over 3 per cent. of operative deaths.

Of cancer operations after recurrence, including 25 cases, 32 per cent. remained free for three years, 68 per cent. recurred within three years. Of 18 cases studied in regard to immunity for five years, 39 per cent. remained free from recurrence.

He sums up by the statement that 40 per cent. of all cases operated on for the cure of cancer, and which cases he followed for this period, remained free from recurrence for three years, and that 41.25 per cent. remained free from recurrence for five years.

The Nature and Treatment of Angina Pectoris.—Barber in the London Practitioner thinks that in a severe attack of angina pectoris, amyl nitrite must be inhaled at once; a capsule, containing three or five minims, should be broken in a handkerchief and the vapor inhaled; if this fails to relieve in a minute or two chloroform may be tried, which is best administered on a sponge, in a smelling bottle, by the patient himself; and for pain which is persistent, morphine, gr. ¼ hypodermically, is required, which in a feeble patient may be counteracted by the injection of liquor strychninæ hydrochloridi min. iij. At the same time, if at hand, the following stimulant should be taken:

℞ Spiritus ætheris, min. xxx;
Spiritus ammonii aromatici, mim. xxx;
Aquæ camphoræ, q. s. ad ℥j.

Or failing that f℥ss of brandy.

As an alternative for amyl nitrite, one or two minims of liquor trinitrini (B. P.) or one or two of the tabellæ trinitrini (B. P.) may be taken. Amyl nitrite usually acts more promptly, but in some cases one of these latter will relieve where amyl nitrite fails. Sodium nitrite, in two and a half grain tablets, is recommended for pain that is not readily relieved by the above nitrites; the dose is one to four tablets.

Erythrol tetranitrite, one grain in alcoholic solution, is said to be more lasting, and is therefore useful in cases in which there is quick recurrence, and the same may be said, to a less degree of sodium nitrite. Of other vapors recommended, iodide of ethyl, bromide of ethyl, and pyridine are the most common, and may be tried in intractable cases; the last is most objectionable, and it is not usual to require any of them. In mild cases, or for pain persisting after the attack is much relieved, hot applications to the precordium are often comforting. When the attack is relieved the patient should rest, avoid all exciting causes, and confine himself to a very light diet; probably for the remainder of that day, at any rate, a strict milk diet and arrow-root is the best. Alcohol is best avoided, unless absolutely necessary.

When these attacks have been declared, a course of nitrites is often very beneficial; let the patient take:

℞ Liquor trinitrini, min. j;
Tincturæ cardamomi compositi, min. xxx;
Spiritus chloroformi, min. x;
Aquæ, q. s. ad f℥j.

Sig: Take at one dose when needed.

Professor Osler recommends that the dose should be gradually increased, every five or six days, till headache and flushing are produced. The nitrites may be taken for sev-

eral weeks; perhaps the most difficult cases are those in which there is a tendency toward failure of compensation of the heart, as the liquor trinitrini may increase this, and the administration of digitalis may bring a return of pain. These patients must be kept in bed or on a couch while the liquor trinitrini is given, and instead of digitalis, caffeine and nux vomica may be used.

Repeated Abdominal Section for Perforation of Gastric Ulcers.—Cuff in the British Medical Journal reports the case of a man of twenty-seven years who underwent two laparotomies for the perforation of two totally distinct ulcers, over four years intervening between the two attacks. In the first instance an anterior gastroenterostomy was done. Symptoms began to reappear after seven months, but over four years elapsed before a second operation was deemed necessary. His original symptoms began at the age of ten years, or thirteen years before his first laparotomy. The writer says that the onset of pain a few hours after the taking of food, when, the digestion of the meal nearing completion, the beginning relaxation of the pyloric sphincter allows the contents of the stomach to flow into the duodenum, and hence over any hyperesthetic spot in that organ is very suggestive of duodenal ulcer. An interesting fact related by the patient was that indigestible articles of food like pork pie delayed the onset of the pain, and this is in strict accordance with this theory, pork requiring four or five hours for its digestion, while mutton requires only two or three hours. This fact of the possibility of retarding the onset of the pain in cases of duodenal ulcer by the administration of indigestible food, or by eating during the digestion of a previous meal, has been noted previously. The same thing has been borne out experimentally by Cannon, who has shown in the course of his investigations on the movements of the stomach during digestion, by means of the X-rays, in cats, that if towards the completion of the digestion of a meal (the movement of which, owing to its admixture with a bismuth salt, was visible on the screen) a hard tablet or button made principally of bismuth was administered, its impact on the pyloric orifice immediately caused the sphincter to contract, and stopped the onward flow of chyme from the stomach to the duodenum for some little time.

A Case of Acute Phosphorus Intoxication with Cerebral Haemorrhage.—Rotky (Prager Med. Wochschrft). This affords a very striking illustration of the deleterious effect of phosphorus upon the vascular walls. Very severe pathological alterations of the vessels developed within a few days following the intoxication, so as to permit the occurrence of cerebral hæmorrhage. The patient was a young man, 18 years of age, who had taken phosphorus (scraped off from matches) in an attempt at suicide. His stomach was washed out, and he was admitted to the hospital at the end of a few hours. He complained of stomach ache and nausea. There were no objective symptoms of intoxication. The stomach was flushed out again, and the presence of phosphorus was demonstrated in the returning fluid. On the next following day the patient manifested a marked euphoria. Examination showed swollen and reddened tonsils, also swelling and congestion of the uvula and the soft palate, with bronchial bruits over the lungs; a pulse of 96, and an amount of urine of 350 ccm. On the fourth day following the introduction of the poison the patient was semi-comatose. The pupils were contracted and reacted very sluggishly; the bulbi were deviated towards the right. There was facial paralysis, occasional twitching of the right arm, opisthotonus, Cheyne-Stokes breathing, general cyanosis, moderate icteric discoloration of the conjunctivæ. The liver was enlarged, and its lower margin palpable. Traces of albumin were found in the urine. Death occurred in the course of the same day. The diagnosis of cerebral hæmorrhage, which had been rendered during the lifetime of the patient, was confirmed by the autopsy.

Treatment of Functional Enuresis.—Zanger (British Medical Journal) mentions the difficulty of treating cases of this disorder which have been allowed to become established in the habit. Nevertheless a cure may be looked for if suitable treatment be adopted. The parents and teachers should be instructed not to treat the child in a peculiar way, as though it were different from other children, as this only tends to increase the neurosis by constantly drawing the child's attention to the malady. Great attention must be paid to the opening of the bowels daily; no fluid should be given after four o'clock in the afternoon; the diet should be free from spices and condiments of all kinds; and the mattress should be a hard one. During the night the child should be taken up and made to empty the bladder, and should be rubbed down with cold water every morning. In specially resistant cases he has found massage of the neck of the bladder from the rectum efficacious; this may be carried out by the finger once or twice a week, for four or five minutes at a time. Faradization of the bladder for five to ten minutes, with gradually increasing

current, has also been found useful in such cases, the two electrodes being placed over the bladder, or one on the bladder and the other on the spine or the perineum.

Neuralgia in Obese Patients.—Raymond (La Quinzaine therapeutique) describes a patient suffering with neuralgia of the median nerve, and calls attention to the fact that the man is a large consumer of food, and is decidedly obese. Affections of cutaneous nerves resembling neuritis or acroparæsthesia in obese persons may be really due to autointoxication. He, therefore, dieted the patient and progressively diminished his weight until he had lost twenty-seven kilogrammes. From this time the patient began to improve and soon was entirely restored, so that he resumed his occupation as clerk. This is regarded as a more rational method of treatment than the usual symptomatic one with anodynes, although it does not entirely exclude them when the pain is intolerable.

Recurrent Herpes of the Buttock.—Dubreuilh (British Journal of Dermatology) says that recurrent herpes, common on the lips and the genitals, and of the type usually known in this country as febrile herpes, appears to be very uncommon on other parts of the body. Less than a dozen cases apparently rest on record with a distribution on the cheek, and its appearance on the buttock seems nearly as uncommon. He has collected in all eight cases, beginning with the initial observation of Bertholle in 1876, and including three hitherto unpublished cases. Prodromal neuralgia was noticed in three cases, and all the patients could be styled "nervous arthritics," with personal or hereditary history of migraine and gouty inheritance. In two cases distinct mental symptoms were noted. The eruption always appeared at each recurrence in the same position and unilaterally. The eruption produced by antipyrin resembles that of recurrent herpes most closely, and the absence of such medication should be ascertained before a diagnosis is made.

No treatment has been found to exercise much impression on the tendency to have these attacks. Gouty conditions should be treated when present.

Separation of the Normally Inserted Placenta in the Course of Pregnancy.—Gaston (Annales de Gynecologie et d'Obstetrique) gives a detailed resume of this question. Many years ago Mauriceau reported in a treatise a certain number of observations of retroplacental hemorrhages. Following the appearance of this article were others by Peu, 1694, and Leroux, 1776. But it is J. L. Baudelocque who handles this question with especial frankness in his treatise on the art of delivery. Some years afterward Mme. Boivin and Mme. Lachapelle, however, denied the existence of this affection. Later writers since the observations of Winter, have made contributions to the study of placental separation. Among these observers are Tarnier, Mm. Henry, Pinard, Varnier, Ribemont-Dessaignes, and Champetier de Ribes.

The writer opens his discussion with a consideration of the etiology and pathogenesis. Under the first heading he considers anatomico-pathological causes and ordinary clinical causes. Under symptomatology he discusses the general condition, abdominal pains, the condition of the uterus, and accessory signs. An interesting section deals with statistics. That on pathological anatomy, including reports on post-mortem examination, is of great interest. Gaston refers to the theory of Schickele, who thinks that the placental separation may take place in such a manner that small effusions of blood on the interior of the decidua form progressively, so that coagulation follows, and with it arrest of hemorrhage. The author believes that the hematomata act like a solid foreign body in bringing about pain, and consequently uterine contractions. He believes that in cases in which the patient is suddenly attacked by intense pain in the abdomen, with all the signs of severe internal hemorrhage, the uterus has not had time to react. The author says that the separation precedes all of the phenomena of contraction.

Perborate of Soda in Septic Wounds.—Chaput (Presse med., Paris) records his experience in the use of perborate of soda in the treatment of septic wounds. This substance acts in virtue of its oxidizing power, 100 grms. giving off as much free oxygen as a litre of peroxide of hydrogen of twelve volumes strength. It may be used either in solution, or as a powder, or in crayons which are introduced into a wound or into the lumen of a drainage tube. He has found it of great value in fœtid and gangrenous wounds; in cases of traumatic gangrene; and in wounds soiled with earth or street dirt, and therefore exposed to tetanus. In septic cavities, such, for example, as appendicitic abscesses, it is best used as a powder or in the form of a crayon. It may be employed as an antiseptic bath in phlegmonous suppuration, or as an injection. In vaginal conditions it is introduced into the cavity in small gauze bags, each containing from 10 to 15 grms. of the perborate of soda. As is to be expected, it has no value

in aseptic wounds or in non-infective ulcers.

Genevriere also expresses a favorable opinion of this substance. He says that it is neither toxic nor irritant, and that it tends to arrest capillary hæmorrhage. It is less expensive than hydrogen peroxide.

Nephrectomy—Indications in Tuberculosis.—Rovsing (Annales des Maladies des Organes Genito-urinaries) in this connection discusses: (1) The extent of the lesions in the kidney. Rovsing does not believe that small lesions give an indication for conservative treatment. Excision should be performed as soon as the diagnosis is made. (2) Disease of the bladder. After removal of the diseased kidney the bladder can be healed by intravesical injections of 100 cc. of 5 per cent. carbolic acid at body temperature, repeated two or three times at intervals of two days. (3) Tuberculosis of the genital organs. This should be removed thoroughly at the same time as the nephrectomy. (4) The functional power of the other kidney. Of the various tests proposed to determine this point the only one of any value is the power of the other organ to excrete the proper amount of urea. Urine by catheterization of the ureter should be obtained from the good kidney, and if this contains pus, blood, or bacilli, the operation is dangerous. Albumin in the absence of pus is probably toxic and may safely be disregarded. If catheterization of the ureters is impossible, both kidneys should be exposed and examined before either is removed.

The Treatment of Noises in the ear upon a Diet free from Salt.—Lermoyez (Ann. d. mal. de l'oreille, du larynx, etc., Paris) mentions the case of a man, æt. 76, who had suffered for eight months from noises in his left ear resembling the crackling of parchment. They were intermittent in character, but they became almost unbearable. Sometimes at their onset they caused vertigo, so that the patient was obliged to support himself. The noises could not be heard by the examiner, even with the auscultating tube. There was no evidence that either the tensor tympani or stapedius muscle was concerned in the production of the tinnitus. The hearing was defective, and low tones were rather better perceived in the left ear, in which were the noises, than in the right, which was free from them.

The difficulty was in determining the cause of the tinnitus, and, under the impression that it arose from extra-aural influences, no local treatment was applied, but the patient was instructed to modify his diet and improve his hygiene. As the result of adopting a salt-free diet, an excellent result was obtained: the tinnitus became less marked, and finally disappeared. Pierre Bonnier, who some years ago studied the influence of Bright's disease upon the ear, published an observation, which apparently did not receive much attention. In the case of a young girl who suffered from spasmodic contractions of the tensor tympani, the exhibition of a milk diet caused the total disappearance of her ear symptoms. He attributed this tonic contraction as due to some degree of renal insufficiency. In Lermoyez's case albumin was found in the urine. He did not put his patient upon a purely milk diet, but contented himself with eliminating the chlorides. This restriction, as already indicated, proved most successful.

The Importance of Koplik's Spots in the Diagnosis and Prophylaxis of Measles.—Andre Bing ('La Presse Medicale) expresses himself as convinced that Koplik's sign is pathognomonic and early, and thus acquires an importance both from a diagnostic and prophylactic point of view. Stress is laid on a correct description of this sign, which consists of a variable number of eruptive elements, each of which is formed by a rose-colored areola having a small central bluish-white point. The rose-colored spot is exactly like the ordinary measles exanthem; the bluish-white point, slightly raised, adherent to the mucous membrane, is the characteristic element which alone is pathognomonic. It is extremely minute, having a mean diameter of two to six-tenths of a millimeter, and never exceeds one millimeter. Attention is called to the dull appearance of the mucous membrane on the inside of the cheeks when Koplik's spots are present, particularly at the onset and end of their evolution. The rose-colored spots, by coalescence and fusion into the general hyperemia of the mucous membrane, always end by losing their individuality, which, however, is always preserved by the bluish-white points, which never coalesce. The exclusive locality of Koplik's spots is the jugo-labial mucous membrane; they run a definite course and then disappear; they never ulcerate, but sometimes leave behind them a small punctiform hemorrhagic effusion. This description serves to distinguish them from aphthæ, thrush, stomatitis erythemato-pultacea of Comby, etc.

Action of the X-Rays on the Ovary of the Bitch.—Bouchard (The London Medical Lancet) read a paper on this subject at a recent meeting of the Paris Academy of Medicine. The experiments in question were made by M. Roulier. Last year three observers showed that the X-rays in weak doses could bring about atrophy of the ovary in rabbits. M. Roulier repeated these ex-

periments upon both rabbits and bitches, and found that the X-rays had an elective action on the ovaries. In very small animals atrophy could be easily brought about without the production of any loss of hair. In the bitch, however, it is very difficult to obtain, even though the administration of the X-rays was carried to the extent of bringing about lesions of the skin. It would appear impossible to bring about atrophy of the ovary in woman, since experiments upon the corpse of a woman showed that X-rays No. 10 were unable to modify the color of a radiometric pastille placed over the ovary.

Nerve Supply of the Diaphragm.—Hess (Munchener med. Wochenschrift) in studying the diaphragm reflex calls attention to the different action displayed by the anterior and posterior portions of the diaphragm. The author suggests that this can only be explained by assuming a double system of innervation, which is further sustained by the fact that in the embryo the development of these parts of the diaphragm proceeds separately. The anterior portion of the diaphragm is supplied by the intercostal nerves, whilst the posterior portion receives its innervation from the phrenic nerve. The writer on presenting this communication exhibited a patient with congenital impotency of both phrenic nerves; during respiration the anterior portion of the diaphragm worked normally, but the posterior portion remained passive.

Suture of Perforating Heart Wound; Death on the Eleventh Day.

Travers, in the London Medical Lancet, relates the case of a patient who fell and was impaled on the large spike of an iron fence. He managed to free himself, but fell and lay for some time without aid. Seen three hours after, he presented a transverse wound about two inches long over the lower end of the sternum, through which a vertical fissure in the bone could be seen. In addition there was the usual picture of collapse from hemorrhage. The wound was enlarged, exposing the lower half of the sternum on the left side; the vertical fissure extended upward to the second costal cartilages; the portion between the second right costal cartilage, and there were fractures through the left half between the fourth and fifth and fifth and sixth costal cartilages; the portion between the second and fifth costal cartilages was missing. The third, fourth, and fifth cartilages were divided at their attachment to the ribs, and the lower fragment of the sternum was turned downward. In freeing the third cartilage the pleura was wounded. The rent,about half an inch in length, was at once clipped with artery forceps and closed by two sutures. A rent in the pericardium about two and a half inches in length was now exposed, through which blood was slowly escaping. The pericardium was full of blood-clot, which was gently sponged away; a piece of bone one inch by half an inch was removed, and a small spicule of bone was felt imbedded in the heart and extracted. On further examination a wound was felt in the rigth ventricle, and on following this along another piece of bone was felt. This was seized with the forceps and removed, and its removal was followed immediately by a terriffic gush of dark blood. The wound in the heart was at once plugged by the operator thrusting his fingers in. The insertion of the three fingers practically stopped the hemorrhage. He also found that his fingers were within the cavity of the heart, the index being separated from the middle and ring fingers by a band of tisue, which at the time he took to be the anterior flap of the tricuspid vavle. Three sutures were inserted, withdrawing a finger as each was passed, and by them the wound was roughly drawn together, and then ten sutures were passed through the muscular coats, using the first three, which were left long, to steady the heart and bring the wound into view. A second row of ten Lembert sutures were passed through the pericardial serous coat, closing in the first row. The patient did well for a few days, but was very restless, and finally died on the eleventh day. Autopsy showed the wound in the heart well closed except at a small point where the muscle was necrotic.

The histology of the skin lesion in varicella, E. E. Tyzzer states that the study of lesions excised from eleven cases of varicella in adult Filipinos shows that the initial change consists in the appearance of peculiar eosin-staining inclusions within the nuclei and cytoplasm of epithelial and various other cells. Direct division of nuclei without subsequent division of the cytoplasm is associated with these inclusions. Cells undergoing these changes often become enormous during their degeneration. After these cell changes the typical varicella process consists of a rapid destruction of small areas of the epidermis associated with exudation and vesicle formation. The development of the vesicle is attended by the formation, about the epithelial cells, of numerous fibres. A certain number of lesions are infected by bacteria, as the result

of which they become pustular. In such lesions there is more or less destruction of the papillary layer, which accounts for the scars frequently following an attack of varicella. A conclusion has not been reached concerning the nature of specific inclusions in varicella and no important evidence has been found in favor of the hypothesis that they are parasitic organisms. Inoculations of the cornea of the rabbit and the skin of the monkey with the contents of varicella vesicles have in all cases yielded negative results.—The Philadelphia Journal of Science.

Diphtheria at the Hopital des Enfants Malades.

Marfan and Le Play. ('Bull. et Mem de la Soc. Med. des Hop. de Paris) report seven hundred and forty-nine children admitted to the diphtheria block at the Hospital des Enfants Malades during the year ending May, 1905. 561 were found to have diphtheria. Of these, 43 died, a mortality of 7.66 per cent. On substracting 13 who died in less than twenty-four hours after admission, the mortality was reduced to 5.47. The number of admissions and mortality had been considerably higher in previous years. The reduced mortality is probably due to systematic prophylactic injection. 671 such injections were given between July, 1904, and July, 1905, to the brothers and sisters of the patients, none of whom subsequently contracted diphtheria. The low death rate is to be attributed to the scarcity of malignant cases in accordance with Martin's law that since the employment of serum the mortality in diphtheria depends above all upon the frequency of malignant faucial cases, and no longer, as in pre-antitoxin days, on the number of laryngeal cases and the frequency of surgical intervention required in such cases. 382 of the cases were laryngeal, 29 died, a mortality of 7.5 per cent. 203 of these cases were intubated, only 7 tracheotomised, 27 died, a mortality of 12.85 per cent. Apart from bucco-pharyngel irrigation used in ulcerating or necrotic forms, Marfan entirely dispensed with local treatment in faucial cases. In malignant forms subcutaneous injection of iodised oil, strychnine, sparteine, or caffeine was employed, or friction with collargol, but the results were not encouraging. The steam chamber hitherto used for the cases of croup and broncho-pneumonia has been discarded this year without bad effects. Instructive tables are given of monthly admissions and deaths, errors of diagnosis, of the serum complications, and of the mortality from intubation and tracheotomy at various ages.

A Note on Syphilis and Cancer and on Some Protozoa.

J. J. Clarke discusses some of the protozoa and the spirochetes. The latter had often been confused, he says, with spiral bacteria. Syphilis is a disease in which the life cycle of the parasite is completed within the human host, so that if Spiirochaeta pallida is related to the causation of the disease other and larger forms of which must be found in the tissues. The author figures the various stages of some of the spirochetes as developed in the intestine of the common gnat, and claims that some of them were described by himself as early as 1894. Since then he has observed similar bodies in the scrapings from tertary ulcers. He is an advocate of the theory that cancer is caused by protozoa, and is convinced that the common forms of cancer and sarcoma are caused by protozoa, and infections by protozoa and differ from the infective granulomata only in the more intimate character of the parasitism and the more complicated life-history of the parasites.—British Medical Journal.

The Appendicitis Question, with Special Relation to Army Statistics.

Karrenstein (Deutsch. Zeit f. Chir) considers every phase of the disease, appendicitis, as it has manifested itself in German soldiers since 1868. Etiology, symptomatology, course of the disease, and operation findings, are all considered and the data are classified in charts and tables. The main conclusion drawn by Karrenstein are that there is no evidence that there are a larger proportion of cases of appendicitis now than formerly; the disease is more frequent among soldiers garrisoned in large cities.

Mortuary statistics do not show that the disease is increasing in severity, although they show clearly that the largest number of cases occur in January, and the next largest number in June and July. The most consant cause of the disease it a stagnation of the faecal matter due to narrowing of the appendicular opening into the caecum; and there is no evidence to show that it is an infectious disease, sui generis.

Trauma plays practically no role as an etiological factor; the influenza epidemic of 1890 was the cause of a marked increase in the number of cases of appendicitis during that year. Influenza is a predisposing dis-

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Ch

ease in summer.

It is possible that tonsillar infection may ber some relationship to appendicitis. Appendicitis is rare in old age, and most frequent between the twentieth and thirtieth years.

The Healing of Aseptic Wounds of the Brain.

Da Fano has made careful experiments on animals to determine the part taken in the repair of the brain tissue by the connective tissue and the neuroglia. The scars examined were produced by lesions made experimentally with removal of a small amount of brain tissue, in the brains of rabbits and dogs. The connective tissue and neuroglia take different parts in the repair of tissue, according to the length of time since the wound. At first the connective tissue takes the whole office of repair, the nerve elements undergoing degeneration; later a marginal layer forms of nerve tissue, with fibres predominating. Still later, in consequence of the retraction of the cicatrix, the relations between the connective tissue and the marginal nerve layer become more complex and an interlacing of connective tissue fibres and nerve fibres takes place of a complicated nature. The neuroglia in the cicatrix is formed of cells with protoplasmic prolongation in which a fibrillar portion is differentiated from the cytoplasm. It has not yet been determined whether it contains nerve fibres independent of the cells.—La Riforma Medica.

Substitution of the Great Toe for the Thumb.

Krause (Berl. klin. Wchnschr) records a case where he successfully transplanted the distal end of the great toe on to the stump of a thumb, which had been amputated through the proximal phalanx sixteen years before. The patient was a working-man, aet. 21, whose earning capacity was considerably reduced by the absence of the greater part of his right thumb. He was provided with a useful thumb as follows: The scar at the end of the stump was excised so as to expose the end of the remaining bone, which was not interfered with in any way, as a movable joint between it and the transplanted toe was desired. A transverse incision was made just behind the interphalangeal joint of the right great toe through the entensor tendon and the dorsal ligaments of the joint, and the head of the first phalanx was then removed. Into the cavity so made the stump of the thumb was inserted, and tendon, fascia, and skin united by sutures on the extensor aspect. The hand and foot were then immovably fixed together by a plaster of Paris dressing for seventeen days. At the end of that time the division of the structures on the flexor aspect of the toe was carried out, and skin, tendon, and fascia sutured as on the entensor aspect. Satisfactory union followed, and the patient was thus provided with an efficient thumb, which he was able to use freely when seen three and a half months after the operation. An X-ray photograph accompanies the report of the ese.

Technique of Radical Operation for Large Umbilical Hernia.

Graser (Zent. f. Gyn) says that recurrences are frequent after the operation for large umbilical hernia. The results after laparotomy in the hospital at Erlangen have been most satisfactory. The author has made use of Pfannenstiel's method of suture with success in cases of large umbilical hernia. The author modifies this method by splitting the rectus muscle into two layers before making his incision and incising the deep layer only when necessary. The disadvantages of the operation are these: the length of the operation, which is at least three hours; the enormous size of the wound; the number of buried sutures that must be used, necessitating perfect asepsis in a very fat abdaminal wall. The results are good enough to justify its use nevertheless. The skin incision is made horizontally across the abdomen on the most prominent part of the tumor, the length being thirty-five to fifty centimeters. The hernial sac is then opened, adhesion is freed, and the thinned part of the sac is cut away. The rectus is now separated into two layers and the anterior layer is retracted before any incision into the muscular tissue is made. Above and below where the recti come near together the separation has to be aided by the scissors, cutting the posterior layer. The nutrition of the layers remains excellent. The abdominal wall is now sewed to the posterior layer of the rectus vertically and the two recti are sutured together in the median line. The fascia is sewed together carefully and the fat is united in the same manner. All hemorrhage is stopped and a glass drain is left in the lower part of the wound. A previous treatment of four weeks is valuable, consisting of purgation and compression of the hernia after reposition. After the bowels have been moved for the first time all danger is over and an uninterrupted convalescence is usual.

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The Tri-State Medical Association, (Va., N. C., and S. C.)

In response to the expressed desire of many of our members, the Executive Committee have changed the date of the 1907 meeting of the Association to June 3 and 4, at which time the regular Annual Session will be held in Norfolk, Va.

Members who have not sent titles of their papers to the Secretary, J. Howell Way, Waynesville, N. C., will kindly do so. It is the earnest effort of the officers and local committees to make this the most successful session ever held, and to that end the cordial co-operation of every member is invited.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page xviii, this issue.

Tuberculous Meningitis in Infants—Somnolent Form.

Lesage (La. Clin. Infant) in a comunication to the Societe des Hopitaux, accurately describes this form. After a prodromal stage, more or less marked, characterized by slight disturbances, of nutrition and symptoms of gastroenteritis, the meningitis makes its appearance as an attack of sleepiness; then the infant remains drowsy for hours, the eyes fixed, with half-closed eyelids; the pulse is irregular, the body-weight decreases, and in four to eight days, rarely longer, the torpor gives way to coma, and death ensues. The above constitute the essential clinical signs of the disease. In order to complete the picture it must be remembered that very frequently the infant is at the breast or bottle-fed, and has unusual symptoms of gastric irribility, milk being persistantly rejected. The vomiting stage lasts eight to ten days or more, and is hardly ever attributel to meningitis, being a symptom of such common occurrence, and it is only when somnolence shows itself that the possibility of a cerebral affection suggests itself. In the twenty-five cases studied by the author the cerebro-spinal fluid was always clear. The cytological formula in twenty-four cases was that of subacute meningitis—marked mononucleosis (82 to 94 per 100.) In general the elements are less numerous than in the meningitis of adults, but the cellular concentration of cerebro-spinal fluid is subject to great variations. On one occasion only was there found a turbid fluid with marked polynucleosis (73 par 100), and this was a case of meningtits associated with Weichselbaum's diplococcus. Koch's bacillus was found by centrifugation in seven instances; in the other cases the result was negative. Similar to facts recorded by Widal and Le Sourd, the virulence of the cerebro-spinal fluid was very marked.

A Case of Oppenheim's Congenital Muscular Atony.

Jovane (La Pediat), gives an account of a male child, aged 3 months. Parents healthy; no history of tubercle, syphilis, malaria, alcoholism, or hereditary neuropathy in any member of family. The mother had not suffered in any way during gestation. Appearance at birth healthy, except that the limbs were flaccid and motionless, and the head rolled from side to side. On admission at the clinic at Naples nutrition was excellent and nothing abnormal was found except the state of immobility in which the child lay in its mothr's arms: The lower limbs were in a state of flaccid paralysis, the upper limbs less so, slight movements of flexion being obtained from repeated stimulation. The head rolled according to the position of the body. In the sitting posture the back curved with the concavity anterior, the head bent on the chest. The auxiliary muscles of respiration were evidently paralyzed, there being an inspiratory retraction of the thorax in front at the point of the insertion of the diaphragm. The state of nutrition of the paralyzed muscles and of the paniculus adipososus was perfectly normal, cutaneous sensibility was intact. Cremasteric and abdominal reflexes normal. Tendon reflexes everywhere abolished, as was also the plantar reflex. Pupils acted normally. The galvanic reaction in the upper limbs, as in the lower, was rather weak, and faradic reaction still more feeble. The case seems one of myatonia (Oppenheim) or congential muscular atony (Berti). Death occurred from broncho-pneumonia at the age of five months.

Heart Massage as a Means of Restoration in Cases of Apparent Sudden Death. With Synopsis of 40 Cases.

T. A. Green, of Edinburgh, (The London Medical Lancet), reports two experiences. The first occurred in a boy, nine years of age, upon whom the author was to perform an operation for congental umbilical hernia. Chloroform anesthesia. Just as the skin incision was being made, the pulse became impereceptible and after a few gasps the patient appeared to be dead. Artificial respiration, lingual traction and injection of strychnine and ether were tried, but without avail. Twenty-five minutes after the heart had stopped beating, Green made an abdominal incision, inserted his hand and began rhythmical massage of the heart though the diaphragm. At the end of a few minutes the heart began to beat spontaneously at the rate of about 90 or 100 beats per minute, and respiration returned. The next day, however, tonic spasms occurred, the pulse rose to 168, the temperature to 103, and despite stimulation and salt infusions the patient died 20 hours later without ever having recovered consciousness. The second case was that of a child three years old, suffering with diphtheria with abstructive symptoms. After apparent improvement under anitoxin, the patient suddenly ceased to breathe and the heart stopped beating. Fifteen minutes later, the abdomen was opened and the heart was massaged through the diaphram; at the same time

a tracheotomy was done. As both these measures proved ineffectual, 45 minutes later the pericardium was opened through the diaphragm and the heart massaged directly. In about 5 minutes pulsation began, which, however, lasted only half an hour; respiration did not begin and after an hour and a half of work the case was given up.

He has collected 40 cases from the literature, of which 9 proved entirely successful. Eight others were partially so. As a result of his studies the author advises the following procedures in such cases of sudded apparent death:

1. Immediate lowering of the head and the commencement of artificial respiration and tongue traction, taking care that a free access of air to the lungs is possible, and therefore implying tracheotomy if necessary. 2. If the abdomen is open, pressure on the abdominal aorta to confine circulation to the upper part of the body. If it is not open the intravenous injection of adrenalin solution and the application of Crile's rubber suit, or, failing this, tight bandaging of the limbs and abdomen. 3. The subcutaneous or intravenous injection of normal saline solution, partly to raise the blood presure and partly to dilute any poisons which may be in the blood and tissues. 4. If the above methods have not been successful after being applied for from eight to ten minutes, heart massage by the subdiaphragmatic method. This route should always be adopted, unless the chest is already opened or to operated upon, as being the easiest way of access, the one fraught with least danger to the patient and the one which has given the larger percentage of success. The time is fixed at from eight to ten minutes because eight minutes is the limit of interval at which up to the present time a complete success has been obtained in man, and if it is exceeded the danger of the production of fibrillary twitchings ,inabaility to restore consciousness, and the development of spasms in the voluntary muscles with consequent failure of the manipulations, have to be taken into consideration. The unavoidable extension of this limit should, however, be no bar to the adoption of the method, as very hopeful results have been obtained, even when 45 minutes have elapsed from the onset of the syncope before it has been tried. 5. After normal pulsation has returned to the heart, artificial respiration must be continued until spontaneous breathing has been restored, or until circumstances make it improbable that such restoration will be obtained.

The Occurrence of Endocarditis in Muscular Rheumatism.

Bechtold, like Leube, is of the opinion that muscular rheumatism as well as the articular variety is an infectious disease, and gives as his reasons for this belief its occurrence in epidemics, the elevation of temperature that is frequently observed, the general constitutional disturbance, and the complication of endocarditis that is present in many cases. In an epidemic observed by the author during the past summer endocarditis was present six times, whereas in 902 cases observed since 1893 endocarditis was noted only eleven times. The author considers that this fact of the greater tendency to endocarditis in some epidemics than in others is an argument in favor of belief in the infectious nature of the disease, for variations in the frequency of certain complications in different epidemics from a characteristic of many infectious diseases. Leube has suggested that the infectious agent of muscular rheumatism, if not simply the attenuated virus of articular rheumatism, may be at least closely related to it, but apparently the two are not identical. —Munchener medizinische Wochenschrift.

Intussusception.

In discussing this condition Cole says that the records of large numbers of cases show that spontaneous cure occurs in less than 2 per cent. of the cases. The diagnosis is rarely doubtful in infants. Tumor exists in almost all cases. Search for it should be made under anesthesia, and by the conjoined bimanual examination of rectum and abdomen. Sudden onset, paroxysmal pain, vomiting, bloody discharges, absence of fecal matter, and the presence of tumor, leave no doubt for diagnosis even in cases in which the baby is suffering from enterocolitis. Purgatives aggravate the symptoms, and are inadmissable. Attempts at reduction of the invagination by distension of the colon under water pressure should be used only in cases that are of not more than six hours' duration. Irrigation should be performed slowly, thoroughly, and with the greatest care, the baby being anesthetized. The dangers of this treatment are: (a) Shock, (b) loss of time, (c) increase of the constriction, (d) rupture of the colon. In every case in which the complete disappearance of the tumor is in doubt, abdominal section should be at once performed.—Intercolonial Medical Journal.

Improved Methods for Recognition of Blood and Seminal Stains.

E. H. Hankin considers this question with special reference to tropical climates. In such climates if the stains are kept moist they putrefy rapidly; if kept dry they be-

come so insoluble as to react with difficulty in ordinary reagents. The author, therefore, adopts for blood stains the following procedure. If on clothing, etc., the suspected stain is cut out and plunged into boiling water for a few moments. It is then placed on a glass slide and wetted with ammonium sulphide. It is examined under the microscope, and the specimen is moved until the whole field of view is occupied by a portion of the colored material. If this cannot be achieved with a low power, the use of an oil immersion may be necessary. The eyepiece is then taken out and replaced by a microspectroscope. If the stain is of blood the two absorption bands of hemochromogen will be seen. Should the bands not be visible—as may occur, apparently owing to the effects of commencing putrefaction—a drop of a ten per cent. solution of potassium cyanide should be allowed to fall on the stain. Two bands will at once develop resembling those of hemochromogen, but situated a little nearer to the red end of the spectrum. The object of boiling the blood-stained cloth is to prevent the coloring matter from going into solution. In case of seminal stains, the following rules are given: (1) The suspected stain is boiled for two minutes in a watery solution containing tannin one-half per cent., and sulphuric acid 1 per 1000; (2) the stain is washed for two minutes in a solution made by adding one part of saturated ammonia solution to 400 of water; (3) it is then transferred for two minutes to a two per cent. solution of potassium cyanide; (4) it is then rapidly washed in distilled water, scraped and teased up on a glass slide, dried, fixed by heat and stained.—British Medical Journal.

Resistance of the Virus of Rabies to Putrefaction.

Tullio Mazzei has observed that the brains of rabid animals preserve their virulence even after putrefaction has set in up to three weeks after death. The author has made experiments on partially putrefied brains sent to the laboratory for examination. He finds that by the method of filtration the virus may be used for inoculation into the peritoneum of animals and will prove virulent. If the method of preparation with glycerine was used the material would be worthless for purposes of examination and diagnosis. The period of of incubation is much elongated, and this depends on the diminished virulence of the germs. Negri's bodies resist putrefaction for a long time and may be recognized for ten days, while the material remains virulent up to 40 days. This method is of great value in enabling organs that have undergone putrefaction to be successfully examined.—La Riforma Medica.

Influence of Artificially Induced Hyperemia on Predisposition to Appendicitis.

Mattioli cites Edebohls' statement that he found appendicitis in the history of 90 per cent. of 135 women with movable right kidney. Mattioli's own experience shows a similar connection between movable kidney, with its inevitable disturbance in the circulation of the region, and the incidence of appendicitis. He here relates a number of experiments on rabbits, producing atresia or occlusion of the veins connected with the appendix. The results indicated that interference with the circulation induces changes similar to those of appendicitis in man, and enhances the predisposition of the appendix to infectious processes.—Gazzetta deli Ospedali.

The Effects of Nicotine Injections on the Aorta of the Rabbit.

Adler and Hensel describe the lesions produced in the vascular system of the rabbit as the result of intravenous injections of nicotine. One and five-tenths milligrams of the drug were injected at a time and it is stated that after 38 injections in most cases demonstrable changes are present in the aorta. These comprise necroses of the circular muscular fibers of the media, which are partly localized and partly cover considerable areas. The degenerated muscle cells become calcareous, but fatty degeneration was not observed. In consequence of this weakening of the arterial wall the elastic fibers stretch and become dilated so that the lumen is increased in size. The necrosis and calcification are confined to the media, but where dilatation of the vessel results a marked proliferation and thickening of the itima also occur. While these lesions are not exactly comparable to those of arteriosclerosis, the authors consider that they are of importance in regard to the theory of aneurysm formation and they hope that their prosecution will throw help to io clear up the difficult problems of human arteriosclerosis.—Deutsche medizinische Wockenschrift.

Influence of Accident Insurance on the Course of Nervous and Mental Affections.

Gaupp emphasizes the facts that the traumatic nervous affections do not differ from the familiar neuroses, and that the traumatic neuroses develop after accidents of the most diverse kinds. The recent legislation regulating indemnities, etc., after accidents has been followed by an increase in the number of traumatic neuroses, and by their longer persistence. He analyzes

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the reasons for this and the means of preventing it in the future. Much depends on the physician at the time of the first examination. Great harm is done by suggesting an unfavorable prognosis or hinting at simulation without positive proof. The latter impels the patient to exaggerate. The physician is too frequently inclined to certify to entire loss of earning capacity to ease his conscience of responsibility. He forgets that it is beneath his dignity to be philanthropic at another's expense. The prospects of treatment of a traumatic neuroses after considerable time has elapsed are not promising, and, if it fails, the patient is merely confirmed in his pessimistic frame of mind. Even medical examination after six months is to be deprecated on account of the suggestion of the patient. Gaupp advocates the introduction into Germany of the plan of paying damages in a lump sum as early as possible. The present conditions, he declares, are absolutely unbearable.—Munchener medizinische Wochenschrift.

The Use of Garbolic Acid in the Treatment of Buboes and Furuncles.

Wolff writes very favorably of the use of concentrated carbolic acid in the treatment of inflammatory conditions such as buboes, carbuncles, furuncles, etc. The acid used for this purpose, he says, is preferably a concentrated solution of the crystalline acid in absolute alcohol in the proportion of nine of the former to one of the latter. The acid liquified with alcohol is said to be more effective than when water is used. If the bubo, for example, is not fluctuating, a small amount of the acid is painted on the overlying skin every day for three or four applications until the skin begins to desquamate. Several days are allowed to elapse without treatment, and then, if necessary, the applications are repeated. Fluctuating buboes receive two or three applications of the acid and on the fourth day are incised sufficiently to allow the contents to escape. The abscess cavity is swabbed out with the acid and this is repeated at intervals of two or three days until a granulating wound results. Furuncles, if of only moderate severity, are treated by dabbing on small amounts of acid, but if they are large, or already give evidence of breaking down, it is necessary to work the acid into their interior through either an already existing natural opening or through a small incision. In many cases a central canal can be discovered through which it is possible to introduce the acid by means of a fine probe. This method is said to be just as effective but much less painful than the old plan of injecting the acid into the depths of the lesions by means of a hypodermic needle. The author also recommends carbolic acid applied in a similar way in the treatment of aphthous and ulcerative stomatitis, scrofuloderma and tuberculous glands. —Deutsche medizinische Wochenschrift.

A petition has been signed by 2,100 citizens of Mansfield, Ohio, requesting that the Carnegie library building now in course of erection, says the St. Louis Lancet-Clinic, be made into a city hospital, and that the ten thousand dollars already advanced by Mr. Carnegie be returned to him unless he should be willing to have the building used as a hospital. The petitioners say the city needs a hospital more than it needs a library.

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Cases of Relapses in Measles.—Leach (London Medical Lancet) reports a recent epidemic (262 cases) of measles at Ledesma, in the Argentine Republic. Four of these cases relapsed. The first was a girl aged 10 years, who developed a well-marked rash fourteen days after recovery, with all the usual premonitory catarrhal symptoms. The second was an infant, aged 11 months, in whom symptoms reappeared two days after recovery from the first attack, and a well-defined rash two days later. An infant of 16 months, living in the same house as the last case, was seized eight days after the first eruption had faded. The fourth patient was a child aged 3 years. In her case the first attack was very mild, with few constitutional symptoms, although the rash was typical ann abundant. The temperature, however, did not return to normal after the disappearance of the eruption, and on the eleventh day a fresh rash appeared which at first was discrete but later became so abundant that the whole surface of the body was covered. This eruption remained out for seven days before beginning to fade. On the twenty-second day from the commencement of her illness the patient developed a mild broncho-pneumonia. It is interesting to note that all four cases eventually recovered, although in the third convalescence was very much prolonged.

Pneumonia Ushered in by Abdominal Symptoms.—Hood (London Medical Lancet) records, in the course of a post-graduate lecture among others, the two following instructive cases: A delicate lad had during the night been suddenly seized with severe pain over the left epigastric region. The pain was accompanied by vomiting, which had been incessant for several hours. There was a temperature of 102 degrees F., and the breathing was quick. During the first twenty-four hours the stomach irritation was practically the only symptom, but the following day sharp crepitant rales at the base of the left lung, followed by consolidation, established the true nature of the illness. The other case is that of a young girl who had been operated on ten days previously for appendicitis. There had been no untoward symptoms, and the wound was perfectly healthy. On the eighth or ninth day after the operation the patient was seized suddenly with illness of an indefinite nature, the principal system being extreme irritability of the stomach. No food could be retained, and incessant attacks of vomiting were rapidly sapping the strength of the patient. Forty-eight hours after the commencement of the illness definite signs developed at the base of the left lung. There was a slight cough and quickened inspiration. The cough increased, becoming paroxysmal. The patient eventually made a complete recovery. He mentions the importance of not neglecting a complete and thorough examination of the chest in all cases of acute abdominal pain which are sudden in onset, accompanied by pyrexia and quickened respiration. In such cases the physical signs denoting implication of the chest may be some hours, not infrequently some days, before developing sufficiently to warrant an exact diagnosis.

Modification of Porro's Operation.—William H. Horrocks (British Medical Journal) suggests a modification of this technic, which is upon the lines sometimes employed in the treatment of uterine fibroid. In considering the choice of operations between the Cæsarean section and Porro's operation, there are certain points in favor of the latter technic. In general one or the other of these operations is indicated when the deformity of the pelvis is so great as to render delivery without craniotomy impossible and where some tumor growing from the cervix or sacrum blocks the pelvic cavity. The question of leaving the uterus has always seemed a doubtful point, although cases have been recorded by French surgeons in which several operations have been performed upon the same woman. Of late it has been customary in performing Cæsarean section to sterilize the woman by dividing the Fallopian tubes. If this be done, the settlement of the question resolves itself into a determination as to whether more shock is produced by the removal of the uterus or by its simple section, suture and destruction of the Fallopian tubes. The technic of the author's modification is as follows: Before drawing the uterus out it may be necessary to ligate the broad ligaments on each side and divide them. After delivery of the uterus through the wound the peritoneum is stripped off until the neck of the uterus is reached by the finger. The uterine artery is found on each side, and a ligature thrown around it, one side only being tied. The anterior wall of the uterus is now exposed and the muscular tissue torn through with a blunt director down to the membrane. These are now opened sufficiently so as to easily remove the child. As soon as natural respiration is established, the cord is clamped, divided, and the child delivered. The cord, with the forceps is now returned into the uterine cavity, no attempt being made to remove the placenta or the membranes. A flat sponge is packed into the uterine cavity and the opening drawn together. The second ligature is now tightened and the uterus divided as low as possible. The stump is then ligatured with a double set of sutures. A sound should be passed into the

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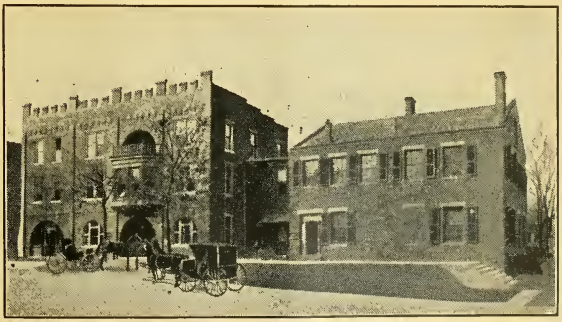

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bladder to determine its position before attempting to perform the uterine stump. The pelvis is now carefully dried and drainage may or may not be established through Douglas' pouch. The special point in this operation is the small amount of shock due to the infinitesimal hemorrhage. The question of tightening the second ligature on the uterine artery before extracting the child is as yet not positively answered.

Measuring the Force of the Heart.—Levy (Zeitschrift fur klinische Medizin) relates his observations with Katzenstein's method of estimating cardiac force. The procedure is carried out as follows: The blood pressure and pulse rate are taken in the recumbent position after which both femoral arteries are compressed with the middle finger at Pourpart's ligament, using the peripheral finger as a control to determine whether compression is complete to cause obliteration of the pulse, when the blood pressure and pulse rate are again taken. Levy noted a transitory elevation in the blood pressure immediately following femoral compression in individuals with a normal heart. This transitory raise in blood pressure, however, is sometimes lacking in emotional and highly strung persons. In individuals with hypertrophy of the left ventricle and those with chronic nephritis and good cardiac compensation, the temporary elevation in blood pressure following femoral compression was materially more marked than in normal subjects. On the other hand, a lowering of blood pressure after compression and signifying cardiac weakness, was observed in severe consummating diseases, particularly the acute infectious diseases and in diseases of the heart. He says this procedure may serve as a useful guide in determining the condition of the heart during the course of infectious diseases.

Tuberculosis Work in Europe.—Walsh (Bull. of the Johns Hopkins Hospital) concludes his paper as follows: Although the sanatoria in the United States are probably accomplishing better results in individual cases, we have not a sufficient number. Germany, with only two-thirds our population, not one-tenth our area, and not one-twentieth our wealth, has more sanatoria, and is spending three times the money on them. We are not using all the means that might be employed to build and maintain sanatoria, like insurance companies, beneficial societies, etc. We are lacking in hospitals for advanced cases, and until we get them, wards in general hospitals should be set aside for the care of the tuberculous. Such wards in addition to caring for the consumptive will help in the education of the general physician, the residents, the nurses and the patients. The tuberculosis dispensaries as managed in France or Germany are the most important elements in the crusade against tuberculosis, and we are woefully lacking in them. A city of the size of Philadelphia should have at least half a dozen, and it has one. Baltimore should have three or four, and it has one. Such dispensaries might be supported as follows: One by the city, one by charity, and one by a combination of beneficial societies.

Schmidt's "Regulin Treatment" in Chronic Habitual Constipation.—Voit (Muenchner Med. Wochenschrift) comments on the regulin treatment in chronic constipation. At the Congress of "Natural Scientist," held in Meran in 1905, Schmidt advanced the hypothesis that in chronic habitual obstipation there is a hyperdigestion in comparison with the normal digestion of food, so that the residue is unsuitable for the development of the intestinal bacteria, the decomposed products of which act as a mechanical peristaltic stimulus. On this assumption he fed such patients with an indigestible nutrient medium, consisting of agar agar, to which is added a twenty per cent. aqueous solution of cascara sagrada, the latter a chemical stimulant. To this preparation he has given the name of regulin, and is now placed on the market by the firm of Helfenberg. Regulin is almost tasteless and may be given with potato puree or mixed with apple sauce. The dose is one tablespoonful daily, or if there is no response after several days, two tablespoonsful may be given in either a single or divided dose, as the preparation is absolutely harmless. The agar agar passes the gastrointestinal tract in an unchanged condition, acting only in the capacity of a nutrient agent for the development of the intestinal bacteria. The amount of cascara contained in the preparation is insufficient to promote bowel movement, and, therefore, the effect cannot be attributed to the latter. Schmidt in his first communication (Muenchner Med. Wochenschrift, No. 45, 1905) reports good results in two-thirds of his cases of chronic constipation. The author highly lauds the preparation detailing the results of its administration in twenty-five cases, some of which were extremely obstinate, with most gratifying results. His success was even a larger percentage than in Schmidt's recorded cases. He says that abdominal massage and electricity may be advantageously used in conjunction with the administration of regulin. It is, of course, to be understood that regulin is not to be used in the sense of a cathartic as castor oil and the like.

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Streptococcic Puerperal Infection.—Zangemeister and Meissl (Zeitschr. f. Geb. u. Gynaek.) made extensive bacteriologic investigations on 50 different streptococcus cultures obtained from various sources with a view to testing their pathogenicity, virulence against immunized animals, etc. Their results corroborate in general the findings of Natvig, inasmuch as they were able to show that all the streptococci examined belonged to a common parent. In particular they could show the identity with the true streptococcus pyogenes of a number of

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saprophytic streptococci found in lochial discharges. From this, two important practical points can be deduced. In the first place, the possibility of an infection through such streptococci as are for the time being merely saprophytes; secondly the possibility of immunizing against all sorts of streptococci. The fact that, at least for certain animals, it was possible to protect against all forms of streptococci by the use of two different and distinct sera, that of Aronson and that of the Rochester Farbwerke, is evidence in favor of this view. Both sera were, it is true, made with the use of several streptococcus stems, were thus polyvalent, yet were nevertheless able to protect against a great many, in fact all the various sorts of streptococci that were injected into mice.

On the Pathogenesis of Tuberculosis.—Vallee (Comptes Rendus, Acad. Sciences) points out that in his experiments by feeding kids with tubercle bacilli the pulmonary lesions predominate over the lesions in the mesenteric ganglia, the latter being always discrete and at times even invisible. Calmette and Guerin, on the contrary, always observed in young kids alterations in the mesenteric glands and thought that the pulmonary lesions only occurred when the mesenteric glands were so diseased that they no longer could act as filters and allowed bacilli to pass through. Calmette and Guerin used a tube to introduce large doses of bacilli into the stomach. Vallee endeavored to imitate Nature as far as possible and gave repeated small doses.

To summarize his results he found that in three very young subjects under natural conditions tracheo-bronchial lesions were produced through feeding with bacilli. The mesenteric glands showed no demonstrable lesions.

It is not, however, justifiable to conclude that this explanation holds good in the lesions of the bronchial glands of infants dead at any age. When tuberculosis flares up in an adult it is probably due to the reawakening of a dormant infection, not so much in the mesenteric glands, usually found intact, but in the bronchial glands.

The Operative Treatment of Suppurative Meningitis.—Kummell (Arch. f. klin. Chir.) is of opinion that the progress recently made by the operative treatment of suppurative and tuberculous peritonitis is such as to favor the supposition that active surgical intervention might improve the very serious prognosis in cases of diffused inflammation of the meninges of the brain and cord. Lumbar puncture, it is stated, has been followed by very good results in cases of cerebrospinal meningitis, and circumscribed suppurative meningitis set up by middle-ear disease and by compound fracture of the skull has been successfully treated by free removal of cranial bone and drainage. The prospects of operative treatment are generally regarded as much less favorable in diffused suppurative leptomeningitis, and, according to Macewen, such treatment is quite hopeless when the inflammatory mischief has extended from the base of the cranium to the cauda equina. The anthor reports a case in which intense and extensive meningitis following a fracture of the base, clearly indicated by the presence of pus in the fluid removed by lumbar puncture, was successfully treated by making two large openings into the posterior cranial fossa and excising the exposed portions of dura mater. Another case is referred to in which free exposure of the spinal canal in the lumbar region relieved to a considerable extent the more serious symptoms of fatal diffused cerebrospinal meningitis following removal of a tumor from the sacrum.

Administration of Arsenic in Chorea.—Parrot (Gazette des hopitaux) describes and approves Weill's method of administering this drug in butter, which is spread upon bread or biscuit, and is readily taken by children. It is prepared as follows: First, a certain quantity of arsenic, which it is thought will be sufficient for a course of treatment, is weighed out and intimately mixed with thirty times the quantity of sodium chloride. This mixture is administered in gradually increasing doses as follows: First day, 0.105 grammes, equivalent to 0.005 gramme of arsenious acid; second day, 0.210 grammes, equivalent to 0.010 gramme. This addition of an equivalent of five milligrammes of arsenious acid is added each day until on the sixth day 0.630 gramme of the mixture is given, corresponding with 0.030 of arsenious acid. When this point is reached, the dose is reduced progressively in the same proportion. Each dose of the mixture is triturated carefully with ten grammes of fresh butter each day as it is used. The excess of salt is generally liked by the children when spread upon tartines. The advantages of this method are that the remedy is perfectly tolerated, and is taken at the table as food, and the diet is not restricted. The patient generally gains in weight during the course of treatment, and is allowed to pass his time in the open air with other children without being specially watched. No accidents have been observed from this method, except some slight skin eruptions. Out of forty-eight cases treated in only three was there partial success. In one case, there was a trace of albumin in the urine. Improvement is generally observed towards the tenth day

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of treatment, and the cure is complete by the twenty-fourth day. The age of the patients for whom dosage, as described, was directed is not mentioned in this article.

Tetanus from Middle Ear Lesion, with Recovery.—Baros (Revue medicale de l'Est) reports two cases of tetanus in persons who worked in stables or on a farm.

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In the first case the port of infection apparently was a vaccination upon the arm. The symptoms had appeared on the tenth day after vaccination, and the patient died within twelve hours from the first outbreak of the tetanic symptoms. In the second case the symptoms were slower in developing and less severe. The only lesion in this case was a suppurating middle ear, which by exclusion was thought to be the site of infection. As the patient, while working about the farm, frequently experienced some irritation in the ear, he would introduce his little finger to relieve it, and the finger being soiled by the manure naturally infected the auditory canal. After a few days of pain and stiffness in the neck, the jaws were set, and attacks of opisthotones frequently recurred. The author administered ten c.c. of antitetanic serum, once daily; and also gave twelve grammes each of potassium bromide and chloral hydrate by the rectum through the day. When the convulsions were severe, an injection of morphine also was given, which usually afforded relief, and sleep for three or four hours followed. The serum was used for eight days, and the bromide and chloral enemata for eighteen days. The symptoms gradually yielded in severity, and towards the end of the third week the patient's appetite came back and his general health improved, although some stiffness in the back of the neck continued for several days longer. He had also much stiffness in the other muscles of the body and limbs, which caused considerable trouble in walking. However, by the fifth week he had entirely recovered. This mode of infection by the ear has been also observed by Jacques.

Hallucinations on the Basis of Hepatic Insufficiency.–Deny and Renauld (L'Encephale) say that acute confusional states, which are not a disease, but a symptom, have been observed in connection with a variety of disturbances. The case reported by the writers is of particular interest, because the onset of acute dementia with hallucinations was very sudden and abrupt, in the absence of preliminaries.

The patient was a woman 38 years of age, and the disease ran a very severe course for six weeks, without marked changes of temperature or any symptoms pointing to the liver. At the autopsy, hepatic insufficiency was discovered as the cause of the trouble. There was extensive fatty degeneration of the liver, with moderate cirrhosis. There also existed diffuse parenchymatous nephritis, without connective tissue changes; and chromatolysis of the cells of the central nervous system. The spleen was not enlarged, and the presence of micro-organisms could not be demonstrated. The writers assume an affection of the gastrointestinal tract as the primary etiological factor.

Duration of Immunity after Injection of Antitoxin.—Sittler (Jahrbuch fur Kinderhk) makes these statements.

Seven hundred cases were immunized with 500 units each, of whom one contracted diphtheria thirteen days later, and two six weeks later. Of 212 cases of scarlet fever immunized, 4 contracted a mild diphtheria. The writer draws the following conclusions as a result of his studies:

(1) Immunization is most effectual for three to five weeks if the patient is not too frequently exposed to the disease.

(2) Non-immunized children contracted the disease more frequently.

(3) Catarrhal affections and traumata shorten the period of immunity.

(4) The duration of immunity does not increase proportionately with the increase of the amount of serum above 500 units.

(5) After repeated injections a condition of anaphylaxia appears.

Muriatic Acid Poisoning.—Strauss (Berliner klin. Woch.) a middle-aged man of tuberculous history and poor general condition swallowed twenty-five c.c. of hydrochloric acid, and very shortly afterwards came under observation. The treatment consisted in lavage with soap solution, and after that calcined magnesia and rectal feeding. On the ninth day in bringing up a quantity of brownish secretion, which had been very abundant from the first, the patient expelled a tubular cast of œsophagus 23 cm. long. This apparently was the mucous membrane which had separated in the submucous layer. From this time on, small amounts of fluid were given by mouth and fairly rapid improvement followed. About two months after the poisoning, however, he began to do poorly again, and died a little over a month later of malnutrition. The autopsy showed that the œsophagus was not stenosed, but that it was entirely devoid of mucous membrane for most of its length, and that the stomach was the seat of a diffuse thickening, which was so marked at the pylorus as to give rise to a true stenosis. The dissection of the mucosa from the underlying structures is supposed to have been the result of an inflammatory necrosis due to suppuration along this line, and the thickening of the stomach due to a general sclerosis starting from a multitude of minute scars. About a dozen cases of the expulsion of similar casts have been described, but these have been after the ingestion of sulphuric acid or strong alkalies. Probably the occurrence is more frequent than supposed, as the mucous membrane is easily overlooked in the vomit.

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Anaemia.

The nutrition of the body, by which we understand the maintenance of its parts in a fit state to perform their functions, depends upon two factors —the supply of suitable food, and the assimilation of the same.

When either of these factors are disturbed, disorders of nutrition result. If the food be inadequate or unsuitable, other things being normal, general atrophy will be the consequence, and the same result will evidently follow if the organs of assimilation be at fault. The result of a deficiency of food, or of faulty assimilation, is a general state of malnutrition, in which any hereditary tendencies that may exist have a more favorable field for development.

There is a gradual diminution in the weight of the body, and an imperfect performance of its functions, as is indicated by muscular weakness, mental lassitude, &c.; and as the quantity and quality of the blood supply depends largely upon the digestion and assimilation of proper and nourishing food, we can readily understand why anaemia is so closely associated with almost all cases of disorders of nutrition, for one of the chief causes of anaemia is that the supply of blood to the body is insufficient, and except in hæmorrhage, this insufficiency is most generally the result of derangements of alimentation.

The majority of cases of anaemia that are regarded and treated as such, fall into the class to which the name of idiopathic has been applied. In such cases the anaemic condition is due, not to any disease, so-called, but to the disturbances of nutrition generally; that is, of a healthy relation between the demands of the system, and the supply of nutrient material, and the proper assimilation of the same.

This condition occurs most frequently in children, the youth, and the young woman, at the period of bodily growth, and of the development and early activity of the sexual functions, and when, as is so frequently the case, the air, light, food, occupation and moral relations of the individual are more or less unhealthy.

Where the aetiology of anaemia is not complex, and where it is classed as idiopathic, as in the growing child, the youth, the girl at puberty, or in cases of depraved conditions of general nutrition which are not symptomatic of some more grave condition, such as Bright's disease, phthisis, &c., the rational treatment suggests itself, viz: To bring the alimentary tract and organs of sanguification into a healthy state, then proceed to build up the general system and increase the blood supply.

Dyspepsia and constipation require immediate attention. The food must be carefully selected so that it will not only supply the albuminous elements that are especially deficient in the blood, but be retained and absorbed; and must therefore be nourishing and digestible.

The patient must also be placed upon nutritive, reconstructive tonic treatment, and in cases of this kind I find nothing that gives me better results than Cod Liver Oil, more especially if combined with the hypophosphites of lime and soda. While these dietetic and medicinal measures are being carried out, it is impossible to insist too strongly

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Nasal catarrh, which has long been an odium of medicine, may now be successfully combated by the alkaline antiseptic—GERMILETUM.

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upon bodily and mental hygiene Above all, time is an essential element in the cure, and rest is scarcely less so. The following case histories may prove of some interest, as they show the results attained by me in the treatment of several cases along the lines mentioned above.

Case 1.—Male; broker; age 42. Scrofulous diathesis. Stated that for a number of years he had been troubled with impaired digestion, poor appetite with occasional attacks of vomiting and vertigo.

Upon examination I found an irritable heart, with soft systolic murmurs. Extreme pallor, with gums, tongue, ears and conjunctiva pale. Had been taking some preparation of Iron, but seemed to derive very little, if any benefit from it.

I gave a brisk purgative dose of calomel, to be followed the next morning by a dose of effervescent phosphate of sodium, and outlined an easily assimilated, blood producing diet. Instructed him to be in the fresh air and sunlight as much as possible, but not to exercise enough to induce fatigue. I prescribed Cord. Ext. Ol. Morrhuae. Comp. (Hagee), maximum dose four times daily, for its nutritive, reconstructive effect.

This treatment, without any other medication whatever, except an occasional laxative, was continued about three months and the result was a complete cure. All the distressing symptoms disappeared, and the patient regained his normal health, strength and energy, with a gain in weight of 18 lbs. during the three months of treatment.

Case 2.—Miss A. H.; 16 years old. Sewing machine operator in a "Sweat shop" where the air was foul, no sunlight, and all the surroundings unsanitary. Had been employed at the same place for two years constantly. Was very pale and anaemic. No appetite and bowels always constipated. Had never menstruated, and had the appearance of an overgrown, undeveloped girl of 14.

I induced her to give up her position, and secured her a place as childs nurse where she could have plenty of fresh air, sunshine, and what was of equal importance, an abundance of nourishing food. I started the treatment with a strong purgative to clear out the alimentary tract, followed by Cord. Ext. Ol. Morrhuae. Comp. (Hagee), four times daily, with instructions in regard to constipation and indigestion, should she be troubled with either. She continued taking the Cod Liver Oil preparation for about four months, during which time she began to menstruate, her body developed and rounded out, her color became good, and she was soon as fine a specimen of healthy, well developed young womanhood as one would care to see.

Case 3.—Male; age 39; farmer. This case cannot be classed as an idiopathic case, but I wish to mention it here, as it is one that I think of special interest. The patient had been troubled for some time with a pain in the "pit of the stomach" which was always increased by taking food. This pain of a burning, gnawing character was sometimes felt in the back also. He was very much emaciated, and stated that he had suffered from two attacks of vomiting of blood, of a bright red color. A typical case of gastric ulcer. I prescribed Bis. Sub. Nit. grs. xxx three times daily, and ordered a strictly liquid diet of milk, beef tea, &c., with complete rest. I also prescribed Cord. Ext. Ol. Morrhuae. Comp. (Hagee) four times daily. It was about six months before I allowed the patient to take any solid food, depending upon the Cod Liver Oil preparation principally for nutrition and reconstruction, and during the six months of treatment the patient gained 22 lbs. in weight, eventually made a good recovery, and is today enjoying excellent health, without having had recourse to any other medication than the Bismuth and Hagee's Cordial of Cod Liver Oil.—From Depraved Conditions of General Nutrition; by Richard Ray, M. D., Ph. D., Kansas City, Mo.

"Spinal Cord Complications of Anemia."

With increased knowledge of the anatomy and physiology of the brain and spinal cord, there is a growing opinion among careful clinical observers that many of the nervous phenomena accompanying general anemia can be directly attributed to resulting changes in the nervous system. The spinal cord complications of pernicious anemia have been recognized for some time, and it is no uncommon thing in these cases to find pronounced degenerative areas throughout the cord. The posterior columns and occasionally the lateral are most often involved, the nerve fibres being chiefly affected, without, however, the extreme shrinking usually observed in locomotor ataxia. While there can be no doubt that these conditions depend to a certain extent on the blood changes incident to the anemic process, it is more than probable that the toxins resulting from the attending hemolysis exert direct injury on the nerve cells.

Fortunately the ordinary anemias are not attended by such extreme changes, and the resulting symptoms, with their speedy control under appropriate treatment, point to a functional rather than an organic origin. These symptoms, while extremely variable, usually consist of constant and pronounced backaches, especially in the cervical and dorsal regions, sensitive areas along the spinal column, variations in the spinal reflexes, paresthesias generally, and often times irritability of the anal or vesical sphincters. Headache is frequently complained of, although the patient is usually able to sleep. The symptoms referable to the sexual function are also extremely variable, especially in the female, and range all the way from absolute frigity to positive nymphomania.

Frequent reference is made to the heart by these anemic patients, and while their symptoms may be somewhat due to the changes in the blood current, there can be no question that the sympathetic nerves suffer in the general involvement of the nervous system, and may therefore be directly responsible for the arythmia, tachycardia, etc., so often complained of.

The great therapeutic value of Pepto-Mangan (Gude) is well shown by its rapid and pronounced action in these cases of anemia complicated by nervous derangements. With the rise in hemoglobin and the blood count, which immediately follows the administration of Pepto-Mangan (Gude), the backaches and headaches cease, the sensory disturbances disappear, and the patient's nervous system rapidly returns to the normal. The comparative ease with which these cases are restored to health when thus treated, will be exceedingly gratifying to the zealous practitioner. He, more than anyone else, realizes the danger of letting young females thus afflicted drag along indefinitely, for he knows that the psychic influence of long continued sensory disturbance is extremely prone to develop and magnify any hysterical tendencies however latent. Early and efficient treatment is therefore not only desirable but urgently necessary, and Pepto-Mangan (Gude) will never prove disappointing.

From time to time new coal-tar products are introduced, and very often these disappear within a few months after they have been brought to the notice of the profession, simply because they do not prove a special value or else have been found to exhibit dangerous properties. Not so with Phenalgin, which is a product put upon the market by the Etna Chemical Company, New York (London agent: Mr. E. J. Reid, Basinghall Avenue, E. C.). Phenalgin is ammonio-phenylacetamide. Like products of a somewhat similar composition it possesses three distinct properties. It is an analgesic. In this respect it bids fair to rival completely

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Apply over the thoracic walls, front, sides and back, and cover with a cotton lined cheese cloth jacket as shown in the illustration.

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Apply over and beyond the sterno clavicular region. If a dressing is put on when symptoms of bronchial irritation first appear a serious development may be prevented.

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Apply over and well beyond the boundaries of the inflammation.

IN ALL CASES ANTIPHLOGISTINE MUST BE APPLIED AT LEAST 1-8 INCH THICK, AS HOT AS THE PATIENT CAN BEAR COMFORTABLY AND BE COVERED WITH A PLENTIFUL SUPPLY OF ABSORBENT COTTON AND A BANDAGE.

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phenacetin, and is of special service in cases of neuralgia and headaches of various kinds. In dysmenorrhœa it is likewise of great service, small repeated doses frequently acting as a charm in relieving this distressing complaint. Then again it is useful in reducing temperature. Here it finds a useful application in the hectic fever of tuberculosis, small doses being given with marked benefit in such cases. In fact Phenalgin is one of the best all-round antipyretic agents known, and is more reliable than any other product of similar origin. Lastly, it acts as an hypnotic, partly by relieving pain and partly also by allaying nervous restlessness, so often met with in diseases of various kinds.

The product is chemically pure, and is put up in pink-top capsules and in tablets. These capsules are made of the best gelatine and are absolutely free from all impurities, retaining their strength, it is said, for an indefinite period. The tablets contain 2 1-2 grains of phenalgin, and the capsules five grains each of the powder. The dose ranges from 2 1-2 to 10 grains, repeated in half an hour if necessary. In cases of dysmenorrhœa ten grains should be taken every half hour until relieved. At least these are the directions given by the manufacturers, but probably much smaller doses will be found sufficient. From personal trial of Phenalgin we can strongly recommend it as a valuable substitute for phenacetin. Its great advantage is that it is not known to the public, whereas phenacetin is, and apart from this it is a distinctly pure product from which good results may always be confidently expected. Samples and further particulars can be had for the asking at any time from the London agent, who will also answer any inquiries relating to this new remedy. We strongly advise our readers to give it a trial in their practice.—Medical Times, London, England.

Important to the Profession.

We desire to call the attention of our readers to the fact that the Dios Chemical Co., manufacturers of Dioviburnia, Neurosien, Germiletum, Palpebrine and Sennine, have filed their Guarantee under the "Food and Drugs Act, June 30th, 1906." Serial number 299.

They manufacture specialties exclusively for the physician to prescribe, and have always freely circulated the formulae of their products to the profession.

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The profession will note from their published formulae that no chloral, opium, morphine or other deleterious drugs enter into the composition of any of the Dios Chemical Co. products, which is of vital importance to both doctor and patient. This and the undisputed fact that their specialties accomplish all they claim for them (as attested to by the most prominent professors at home and abroad) places these preparations very high in the estimation of the profession.

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A physician makes the following statement: "I consider Tongaline far superior to any preparation for rheumatism, neuralgia, grippe, gout and similar complaints, and it has given me such uniform satisfaction that I rely upon its action most implicity.

I was first impressed with the unusual merits of Tongaline by the great benefit which my wife derived from its use, and this was all the more remarkable because she tolerates salicylates in any other form very poorly, but whenever she feels the first symptoms of rheumatism, the attack is at once controlled by taking Tongaline for a very short time."

Liquozone Barred from Registration in U. S. Patent Office as unlawfully interfering with the Trade Mark Glycozone.

Notice is hereby given that in a proceeding in the United States Patent Office, which is entitled The Drevet Manufacturing Company vs. The Liquozone Company, the name "Liquozone" was barred from registration in the U. S. Patent Office as unlawfully interfering with the trade-mark Glycozone.

The individual or corporation in any way infringing upon the trade-mark "Glycozone" which is a lawful trade-mark (Glycozone being a thoroughly scientific and legitimate preparation for the treatment of germicidal diseases, etc.) and duly registered under the new trade-mark law, or selling of any merchandise labeled with any mark or name infringing upon the trade-mark "Glycozone" or in any manner resembling the same, will be prosecuted for damages to the full extent of the law.

On November 8, 1906, I gave your hyoscine, morphine and cactin compound a fair trial as follows:

An Indian woman of the Timphnute tribe at Caliente, Nevada, was badly cut about the head and face as follows: Her upper lip was cut from the antrum of Highmore to the mouth in two parallel cuts resembling a double cleft lip.

I gave the tablet as directed in your letter. The patient slept quietly during the operation of suturing, and at the end of one hour after the operation she awoke and went about her business with no apparent ill-effects from the anesthetic and no pain. I shall use it in my surgical practice hereafter and will let you know the outcome. I shall also try it in obstetrical work. It looks to me as though you have made a great stride forward in surgical and obstetrical anesthesia.—W. P. Murray, Caliente, Nevada; From the American Journal of Clinical Medicine, February, 1907.

The Mineral Waters of the Buffalo Lithia Springs have been widely and favorably known for many years. Their efficacy in the treatment and cure of disease has been strikingly attested by their extended use and increasing popularity with each succeeding year, for it has been demonstrated beyond question that their therapeutic action is definite and constant, and that, for special indications, they may be relied upon with a great degree of certainty.

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"The experiments of Drs. Charteris and Latham prove that the presence of ortho- and para-creosotic acids as impurities in artificial salicylic acid causes intense gastric irritation and depression of the heart; furthermore since artificial salicylic acid and its derivatives are eliminated in the urine they are destructive to the kidneys, and should, therefore, never be employed for internal administration.

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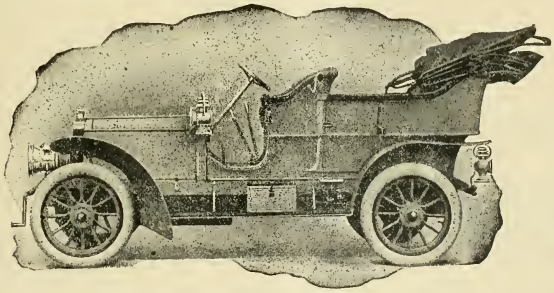

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Dr. Uriel S. Boone, formerly professor of Pharmacology and Surgery, College of Physicians and Surgeons, St. Louis, says: "There is one thing bad about the grippe. Its victims instead of being rendered immune by the first attack, seem to become more liable to its recurrence. There is one disconcerting feature about it. Its symptoms resemble those of so many far more serious maladies. This country is full of people who are going about darkly ruminating, because of evidences of heart trouble, nervous prostration, dyspepsia, liver complaint and old age, "together with a plentiful lack of wit and weak hams."

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THIRTY-SEVEN years ago, A. H. Hassell, M.D., F.R.S., President of the Royal Analytical Association, London, analyzed Colden's Liquid Beef Tonic, and gave it his official approval:

Thirty-seven years of continuous use and the unqualified endorsement of a large number of the foremost physicians of England, Canada and this country have proved conclusively that as a means for exciting the appetite, increasing the digestive powers, and stimulating the nutritive processes generally, Colden's Liquid Beef Tonic is remarkably efficacious. Write for sample and literature. Sold by all druggists.

Dose: Two tablespoonfuls ten minutes before each meal.

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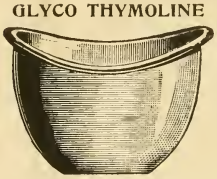

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Respectfully,
D. M. JONES, M. D.

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The Anasarcin Chemical Co.
Winchester, Tenn.

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Yours truly,
J. W. ANDERSON, M. D.

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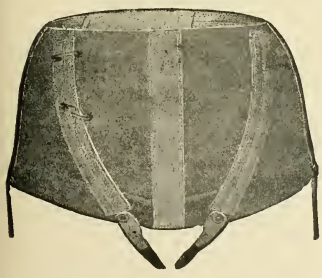

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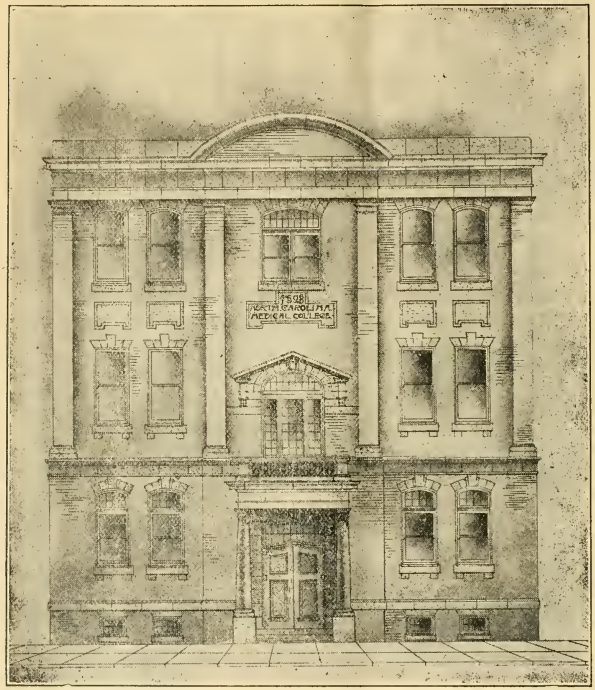

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Tubercular Tourists of the South-west.

By J. A. Harein, M. D., El Paso, Texas.

El Paso, Texas, a city of forty thousand population, is situated on the Rio Grande river in the extreme south-western part of Texas, and south of Central New Mexico.

The street car company runs a car line over the Rio Grande into Mexico; a car fare of five cents will carry one from central plaza, El Paso, to the main street Cindad, Juarez, Mexico.

While I am writing from El Paso, what I am going to say in regard to the climate will apply to the surrounding country; Mexico, New Mexico, Arizona, and south-western Texas as far east as Ft. Davis, Marda, and Alpine.

El Paso is surrounded by a desert country for four or five hundred miles, only small towns of a few inhabitants to a few hundred along the railroads. Through the country occasionally a ranch house occupied by a family or man who has care of the stock. The spring rains are sufficient for the wild prairie and mountain grasses, and stock raising, cattle, sheep, and horses, named in order of their importance, keeps this section from being described in geographies as a desert. No farming only by irrigation, and that is not very extensive.

In the towns, and occasionally on the ranches, we find tubercular tourists. I have used the word tourist because so many keep changing from place to place; and many, after a few weeks stay, return to their homes. El Paso is the center for tubercular patients in this section. The physicians have estimated the number of tubercular patients at five thousand. They are in the hospitals, the hotels, public and private boarding houses, and in tents. Some are comfortably located and well cared for, while others are very uncomfortably located and are neglected.

The climate and its effect on tuberculosis is of the most importance. I therefore will endeavor to give this division of the subject more careful attention. This south-western country is attractive largely by its fine climate, the climate is fine because of the moderately high altitude, extreme dryness, absence of Northers in the winter, and hot winds in the summer, maximum of sunshine and minimum of cloudiness, and a great daily range of temperature, often reaching 35 or 40 degrees. In El Paso the winters are very mild, some fires at night, but none during the day. In January and February the [1]tourists, tubercular or otherwise, sit out in the sunshine in the plaza and in the park. Only a few days during the winter that it's uncomfortable to be out either from cold or rain. The average rain fall for the year is about 12 inches, and this is largely in the spring and summer; therefore, the winters have but little rain. The sprinklers are now in full force during the winter in El Paso, with only a few days of rest the whole season. The winters are milder than north of here, but no milder than the Texas places mentioned east of here. The summers are hot? Yes, and they are also cool and pleasant. The summer sun from 10 o'clock of mornings till 5 o'clock of evenings is blistering to a fair skin "Eastman" —"a tender-foot." Yet in the shade its cool and pleasant, because of the elevation and good wind. The nights are always pleasant in summer, cool enough to sleep under cover. One who has been on the eastern Tennessee or western North Carolina mountains during the summer can appreciate the pleasantness of the nights in the southern Rocky Mountains.

The high, dry air of this south-western country surely has health-giving properties for tubercular patients. Those who come in the early, and some who come in the advanced stage recover without medicine. The general belief of the regular physicians out here is to feed well a wholesome, nutritious diet, and give a ranch or tent life, if the patient is physically able to take the exposures incident to such a life, and leave off medicine. In Highland Park, a suburb of El Paso, a number of cheap houses have been put up for tubercular tourists, which is probably just as good as the tent-living. The important thing for these unfortunates to do is to get out of the dusty, smoky city into the country, and live out in the open air as much as possible.

In reference to recovering, many regain their flesh and strength and resume work or business; a number of apparently strong men, some professional men, others business and laboring men came here years ago tubercular, and so far as they know, they have recovered. I don't know whether these persons could go back to a cold, damp climate and remain well, but I fear some of them would soon relapse. However, my knowledge on the returning is not sufficient to say much, only of those who have not been benefited by this climate soon die after returning to their homes. Do any die out here? Yes, I suppose some die on the road out here, I know some die the day they ar-

rive, others a few days later, and some come who do not improve and return to their homes to die. This is not against the climate, it's a mistake of the patient coming too late, or not living right after coming. Diet and air is the accepted treatment here, therefore do not visit the Bensonizer or any other quackery. However, it is well to consult a regular physician and retain him as an adviser for diet and exercise. For those who come in the incipiency, and even some who are far advanced, and adopt the proper diet and living recover.

No doubt this is the climate for tubercular sanitariums. Why could not our National Government erect and maintain sanitariums in this south-western country for these unfortunates in bad climates till tuberculosis, as other infectious diseases, is or should be no more? If the spirit of commercialism in the United States could be converted into efforts to eradicate infectious and contagious diseases the great "White Plague" would rapidly disappear. I am an advocate of the Panama Canal, however I believe the United States is spending enough in this one enterprise to properly care for all her tubercular subjects. And care for those infected means protection for those who are not; and by and by the eradication of tuberculosis in our country.

The Management of Puerperal Eclampsia.

By Edward C. Register, M. D., Charlotte, N. C., Ex-President Medical Society of the State of North Carolina; Ex-President Board of Medical Examiners of the State of North Carolina; Professor Practice of Medicine North Carolina Medical College; Physician-in-chief St. Peter's Hospital, &c., &c.

In this short paper it is not my intention to discuss at length the etiology of eclampsia. The subject is too obscure and our knowledge of it is too defective to deal with it further than it relates to the treatment. It is plausible at least in most cases to believe that the conditions that we find in the kidneys and in the blood and nervous system during pregnancy are directly or indirectly due to a toxemia. Just the nature of this toxemia, the character of the poison or infection that produces it, is of course not known. It has not been demonstrated, but we have every reason to believe that eclampsia is due to the presence in the system of a toxine. All the symptoms or signs or combinations of them that we can recognize in the pre-eclamptic state suggest that some kind of a poison has been introduced or retained in the circulation.

The general practitioner usually depends upon the state of the urine to give him the correct clinical index to the pre-eclamptic condition. He notes the quantity of urine excreted in twenty-four hours, the amount of albumin and urea it contains and how they influence the feelings of the patient as they increase or decrease. Albumin may be wanting and a physiological amount of urea may be present before or during and even after eclamptic convulsions. I have noticed this in many cases. It is generally believed that the quantity of urea eliminated is fully as significant and may be as good a guide to the real condition of the patient as the amount of albumen excreted. I do not mean to convey the idea that convulsions are caused by urea alone, for it is generally believed that they are not; besides it is well known that large quantities of this substance may be injected into animals without causing toxic symptoms. It is thought suggestive of danger when the quantity of urea eliminated is large and is quickly diminished. As a clinical guide it is valuable, but it is too often misleading to be depended upon as a clinical guide. Several other materials may be present in the urine, with qualities equally poisonous and even more so than urea, and still an eclamptic attack may or may not appear. Just the extent of the perverted functions of the kidney and the amount of toxines that are in the tissues that are dependent upon the abnormal digestive functions that are so often seen during pregnancy can only be inferred. It is certainly reasonable to believe that the relationship that exists between these important excretory organs and eclampsia is very close.

It is easy to observe that digestive disturbances which are so common in the pregnant state, produce many symptoms similar to those noticed in the pre-eclamptic patient. This relationship between the digestive tract and the kidneys and eclampsia ought to impress itself upon the ordinary mind, when we so seldom see eclampsia in patients where the alimentary tract is in an active normal condition, even if the kidneys show signs of impending danger. On the other hand, if the kidneys are apparently normal, and the digestive tract badly deranged, eclampsia is not uncommon. If we were to bear this in mind we would not continue to look for some specific cause for eclampsia, but would look for a few general causes, such as the mistakes in diet, the toxic influence of bile and the absorption of products, such as originate in intestinal putrefaction and other processes that take place along this canal. To these general causes may be added the metabolism of the tissues of the foetus itself. This often, I feel sure, increases to a great degree the poisonous material in the maternal blood. For clinically it is well known that when the foetus

dies, or when the living child has been delivered, in a large per cent. of cases the eclamptic convulsions cease. In addition to this it is certainly easy to observe that there is a much greater pre-disposition to eclampsia in twin and triple pregnancies than in a normal pregnancy, and that the tendency to eclampsia increases proportionately as pregnancy advances and the consequent increase of foetal metabolism. Besides it is common knowledge that the mortality of pregnant women decreases rapidly as the post-partum condition is reached. Statistics show that the maternal mortality in ante-partum eclampsia is 46 per cent. During the puerperal intra-partum eclampsia 25 per cent; while in post-partum eclampsia it is only 7 per cent. These statistics ought to suggest a great deal, when we come to consider more specifically the treatment of this condition.

The prevalent practice among many physicians to make monthly examinations of the urine for the detection of albumin alone is not sufficient. Enough information as to the real condition of the patient is not in this way available, for we must bear in mind that fully 15 per cent. of eclamptic cases have no albumin urea. While it is proper, of course, for us to note the kidney insufficiency, the quantity of the urine passed, its specific gravity and the amount of urea and albumin eliminated, other observations are essential to make the clinical index complete. High arterial tension, headache, dizziness, gastric disorders, mental and physical lassitude, disturbances of the bowels, of the skin, the liver and the lungs, their failure to properly perform their functions, either separately or collectively, are all clinical evidences of danger, and if we want to intelligently understand the real condition of our patient we must carefully note all these signs of danger. With these ideas as to the nature of eclampsia, we naturally think of the diet, of effective elimination, the activity of all the excretory organs and of the foetal metabolic products, when we come to specifically consider the treatment of this condition.

In all cases where we see a well developed abnormal puerperal condition, a reduction of the quantity of nitrogenous food should be insisted upon, and almost an exclusive milk diet substituted. When the symptoms improve and we have less evidence of approaching danger, a more liberal diet may be advised, such as fish and the white meats. It has been my rule for several years, when I think the case justifies it, to begin at once with an absolute milk diet, and later on to increase it, when the case improves. The patient should take a great deal of light water—sleep in well ventilated apartments and take gentle exercise and massage. A great many things ought to be taken into consideration in attempting to prevent toxines in the blood of a pregnant woman. Regular bathing and warm clothing and regular habits ought to be insisted upon, besides she should avoid all irregularities, such as late meals, late hours, anxiety, grief, and financial and social cares. If by her negligence or her mistakes or ignorance her system becomes infected and she has evidences of danger, the presence in her system of poisons, the process of elimination should be encouraged. In mild cases—really in a large per cent. of cases—where evidences of danger are easily recognized, in the pre-eclamptic state a restricted diet and general stimulation of the functions of the kidneys and intestines are usually sufficient, but in more severe cases it may be necessary for the patient to be kept perfectly quiet in bed, with only a milk diet, and all of the eliminative organs stimulated and every effort available resorted to in order to remove the symptoms of impending eclampsia. The most important of all of the preventative measures employed in eclamptic cases is the milk diet. It is invaluable in these cases. With a reasonable amount of care, if this diet is insisted upon, patients will usually do well. To accomplish elimination the specific method pursued is not very important. A few of a great many drugs can be used that will accomplish what we have in view, certainly so far as the bowels are concerned. To encourage the action of the skin the body should be properly clothed, massage should be used and warm baths, or occasionally a hot pack or a hot air bath may be resorted to. Sometimes in order to get a diaphoretic, diuretic action, together with some action upon the liver and intestines, a pill composed of calomel, digitalis and squills each one grain with 1.20 grain of muriate of pilocarpin should be given. I find this very beneficial, especially if the symptoms are at all suggestive of immediate danger. By this procedure we encourage all the eliminative processes, and unless the case is a very unusual one, this treatment will arouse these special functions without any other form of treatment.

There is no rule or set of rules that will be applicable in every case; no medicines or class of medicines that will be suitable in all cases. In a certain per cent. of cases despite the proper diet and the correct hygienic management, the energetic stimulation of all these eliminative processes, evidences of danger will still persist and our patient will develop convulsions. Then, we must take into consideration the propriety of bringing on premature labor. A

physician with large experience, who has had access to facts and statistics, ought not to have any trouble to arrive at a correct conclusion as to what his duties should be in such cases. I have always thought that palliative measures in such cases were usually dangerous, that premature labor should at once be advised. Many claim, however, that labor induced by the usual methods increases the reflex excitability; that it produces or may introduce a new infection into the system, and that the time necessary to accomplish the operation causes an exhaustion that nearly always proves fatal. We believe this is a mistake. Our method of giving chloroform in this country when this operation is undertaken usually prevents reflex excitability, and the time necessary to obtain our ends is usually very short. There should not be in the majority of cases over forty or fifty minutes between the beginning of labor and the termination of pregnancy, consequently there is not much time consumed or shock or exhaustion produced. In skilled, careful hands, with suitable environments the danger of introducing a new infection into the case ought to be very little. These different ideas, this conflict of medical opinion is natural, and may continue as long as we have so many different beliefs as to the cause and pathology of this disease. My desire to direct attention to these different ideas is my excuse for presenting this paper, besides I have a desire to develop more specific conclusion on these essential but now debatable points. Observation teaches us that no one treatment at this stage of this condition can be followed in every case, no matter how intelligent it may appear and how applicable it may be in a large number of cases. Many women will die and many will recover in spite of the treatment; many of them will get well with no treatment at all. No specific method ought to be advised or insisted upon. It is the general principles here that we wish to discuss; the selecting of the best of the various methods and their application in different cases. With this idea the principles of the treatment of eclampsia proper can be considered in all its phases under three heads:

The control of the convulsions.
The elimination of the toxines, and
The emptying of the uterus.

While I mention these indications of treatment in order of their importance, the first and second can be carried out at one time, and the third at the discretion of the physician, or as the nature of the case suggests. The best, the safest and the most effective of all the anti-eclamptics is chloroform. Every writer and every physician, so far as I know, has this confidence in the drug. It may not be indicated in every case. Many times the patient has only one convulsion and the other things that we do are sufficient to give relief; especially is this the case when the convulsions come on after the delivery of the child. Morphine can very often—really in the majority of cases—be given in puerperal convulsions, with perceptible benefit. If chloral hydrate and bromide of potassium are given (and they usually are), the danger of stupor and the coma that follow convulsions may be greatly increased. This should always be kept in mind, consequently it is well enough to oppose the giving of large doses of this drug. We expect when morphine acts normally, for it to check all the alimentary secretions. This is an objection that is not very great, because we expect, regardless of the amount of effort it takes, to stimulate to the fullest every secretory organ in the body and do it quickly and thoroughly, even if morphine has been given. It is natural to expect the alimentary secretions, especially after morphine has been given, to be a little scanty, but it is quite easy to overcome this and give our patient the benefit of the anti-spasmodic effect of this very valuable drug. Its use may be objected to, as I have said, on account of its increasing the tendency to stupor and coma. Here lies a danger, certainly if it is carelessly and recklessly given, as it is sometimes, for many of us often get anxious—really excited—and do too much, or do things we ought not to do, when we have to deal with cases like these, where dangerous and distressing symptoms are so noticeable. Opinions differ a great deal as to the value of veratrum viride. At one time I used it in every case, but now have abandoned it entirely. While it has value in many cases, as a rule its good effects are too often disappointing. The prevalent belief at one time was that when this drug was given in sufficient quantities to keep the pulse below 65, that it would in nearly all cases stop the convulsions. This was not my experience, when this drug was mainly relied upon. The idea that still prevails to some extent, that it has some unexplainable curative power over puerperal convulsions, never appealed to me. It's virtue, so far as can be explained, depends upon its diaphoretic-diuretic-anti-spasmodic action, and we have drugs, several of them, that will act better in this way than veratrum viride, drugs that more completely control spasms, and drugs that are better eliminatives. While we are using all of the available means possible to control the convulsions, we can at the same time consider the methods to eliminate the poison or poisons which we believe to cause these convulsions. Not one, or a

few of them, but every eliminative organ in the body should be brought into action. Prompt and thorough cathartics ought to be obtained, and there is no better plan to accomplish this than the immediate and liberal use of croton oil, with large dose of calomel, followed with enemas of sulphate of magnesia. This method, if carried into effect, will quickly establish a satisfactory alimentary elimination. Pilocarpin hypodermically combined with hot packs and large normal salt enemas is my method of producing diaphoresis. There may be objections to the plan, but I have learned to believe it to be the best. It is easily accomplished and always effective. I have never seen the throat and lung complications that are occasionally noticed, when pilocarpin is given in the eclamptic state. In many of my cases dry-cupping is used over the kidneys, followed by hot fomentation. This produces some diuresis. I always encourage my patients to drink a great deal of light mineral water, if they can do so between the convulsions. If they are in a stupor I rely on the normal salt enemas. Evidences of approaching exhaustion and collapse should be treated as in the same conditions under other circumstances. I have always been convinced that it is a rational procedure to empty the uterus, under deep anesthesia, by some method that is rapid and that will cause as little injury to the woman as possible. There is no doubt in my mind that many cases can be saved, and that many cases can be lost, when this principle is not promptly acted upon and intelligently carried into effect. The idea that the eclamptic uterus should not be disturbed until after the os is fully dilated never seemed to be very rational to me. That the irritation produced by artificially aiding nature brought on convulsive seizures in a more aggravated state than when left to nature, are not the conditions noticed in my practice. In specific cases, when we are discussing the best procedure we ought to bear in mind that observations show that the danger is essentially past in fully 90 per cent. of cases after the uterus has been emptied, if accomplished early after the eclampsia begins, and if produced in a reasonable length of time and with a reasonable amount of skill. Convulsions do not always stop when this method has been pursued, but it is easy to observe that they become less and less dangerous, when the case is converted into one of post-partum eclampsia, which, as we have said, is almost without danger, the mortality not reaching over seven per cent.

We have very few writers in this country now, who reject altogether local interference during an attack of intra-partum eclampsia. There is, however, a great difference among them with regard to the extent of the interference. It seems now from the various reports (reports that seem to be the most reliable and that represent the ideas of the best obstetricians in the world), that it is the best to empty the uterus as quickly as possible in cases of this disease, certainly when the attack takes place during labor, and the only great difference of opinion seems to be as to the method to be employed. It is generally agreed among those who advocate local interference, that in the second stage of labor, after securing dilatation, there is every reason to believe that the proper procedure is to empty the uterus immediately and the operation should be promptly performed. This is accomplished with no additional danger to the mother or to the child. In pregnancy and in the first stage of labor the objections offered to the rapid delivery is the undilated cervix. Here it is that authorities differ so widely in their opinions as to the best plan. I believe that the expectant or the palliative method of treatment that is often insisted upon in these cases will almost surely be followed by death of the child, and fully thirty-three per cent. of the mothers will die. On the other hand if a more radical treatment is adopted and the uterus promptly and skilfully evacuated by appropriate surgical means, the child's life is saved and the mother is practically subjected to very little danger. As to the various methods of procedure at this point in the treatment of eclampsia, a plan that I favor more than any other, and the one that seems to be the most popular at the present day, is the mechanical dilatation of the cervix and the prompt extracting of the foetus. This method is safe and effective when properly performed. To do this operation it ought, in every case, to take from forty minutes to an hour and a half. Certain cervical conditions, even when we take this much time, will yield with great difficulty to manual dilatation, and if the operator is in too great a hurry, he is likely to entail lacerations of the cervix and uterus that are unnecessary and may be dangerous. In the majority of cases I believe it is a safe and intelligent treatment after all preventative measures have been employed and the eclamptic stage has been reached, to at once consider only three things, they have been referred to; namely, control the convulsions, eliminate the poisons from the system, and lastly terminate pregnancy at once. The first two indications will not be again referred to. The extraction of the foetus, unless it can be expertly performed with an intelligent understanding of the mechanism of dilatation, particularly in primipara, better re-

sults will, in all probability, follow the expectant plan of treatment. It is not uncommon, in careless and reckless hands, to hear of many accidents, such as rupture of the uterus, when rapid manual dilatation of the os is undertaken, before the internal os has disappeared. This condition is noticeable in primipara, especially up even to the end of pregnancy. Uterine rupture and death has very often followed the careless performance of a rapid manual dilatation. Very often unnecessary shock, caused by the dragging of the foetus through an imperfectly dilated track is observed. Consequently the greatest care should always be taken in this manipulation. I have seen more than one case where premature extraction has been followed by many unnecessary and dangerous lacerations of the lower uterine segment, and where the life of the patient was needlessly jeopardized. While I have great faith in the efficiency of the immediate and prompt removal of the foetus, I recognize the many objections to it and the many dangers connected with it. Through its careless performance, many lives—certainly of children—have been sacrificed and on this account I shall always advocate with a feeling of hesitancy this treatment, for fear it will be indiscriminately and unskilfully performed.

Carcinoma of the Penis.

By Thos. M. Green, M. D., Wilmington, N. C.

Carcinoma of the penis occurs, according to the various authorities, from one to three per cent. of all carcinoma in the male, and is the form of neoplasm most frequently met with in that organ. It is usually encountered after the fortieth year, most frequently between the fiftieth and seventieth years, although Freyer[1] reports a case in a youth of seventeen years. Kaufman[2] gives six per cent. in the third decade.

Etiology.—Like carcinoma elsewhere, it is frequently associated with chronic irritation, whether it be a scar at the site of an ulcer, specific or otherwise, or long-standing Phymosis, with accumulation of Smegma and resulting Balano-Posthitis or a traumatic scar. Of all the etiological factors, Phymosis and venereal warts seem to be the most prolific. Kauffman[3] gives twenty-nine out of thirty-three cases associated with warts. Demarguay[4] reports forty-two cases out of fifty-nine occurring from Phymosis, and Keys claims that the circumcised Jew is exempt.

Pathology.—Kuttner describes three forms:

1st Form.—Papillary cauliflower; most frequently seen in the presence of Phymosis. Beginning on the glands, or inner layer of the pepuce, growing rapidly and involving scrotum, pubic coverings and entire penile structure.

2nd Form.—Carcinomatous ulcer; less frequent; beginning on the glands or Coronal Sulcus, growing slowly at the local point, but manifest remotely, out of all proportion to the extent of local involvement.

3rd Form.—Non-Papillary; rarest of all. Has no papillary arrangement but rather resembles carcinoma of the breast. Very malignant.

The growth may invade all the penile structures, scrotum, pubic coverings, prostate, rectum, bladder and seminal vesicles, by direct invasion, although Kuttner[6] has demonstrated that in the corpus cavernosum metastatic nodules may be found remote from the diseased area, with healthy tissue intervening, simulating metastasis of sarcoma. The corpora cavernosa seem to enjoy a great deal of resistance to direct invasion, while the corpus spongiosum and urethra are even more so. Metastatic extension is by the lymphatics, except in the corpora cavernosa as noted above. Superficial penile lymphatics to the inguinal and femoral lymphatics, and deep penile lymphatics to the retro-peritoneal glands. The time of invasion varies; in some cases early, and again, delayed out of all proportion to the extent of the local growth. The glandular extension shows often a tendency to be arrested at the inguinal and femoral lymphatics for sometime before extending to the retro-peritoneal glands. Early lymphatic involvement is generally the rule. Secondary pyogenic glandular infection may be seen late.

Symptoms.—Little or no pain is experienced until toward the end, when itching may or may not be present. Bleeding on manipulation and sloughing with characteristic epitheliomatous discharge is the rule. Death is due to exhaustion, whether it be from septicaemia, constant hemorrhage or cachexia.

Diagnosis.—Becoming manifest usually in the last decade of life, when the sexual life is practically spent, one would naturally suppose the recognition of it to be comparatively easy, and yet such is not always the case. It is to be recognized from venereal warts, chancroids, chancre or tuberculous ulcer. Careful attention to the history, and examination, will eliminate all of these except chancre. Here, except in doubtful cases, specific treatment should always be tried. In fact, it seems to me that the patient should be given the benefit of this doubt in all cases.

Prognosis.—Depends upon the extent of the lesion. Most authorities give a rather gloomy prognosis, especially when the lym-

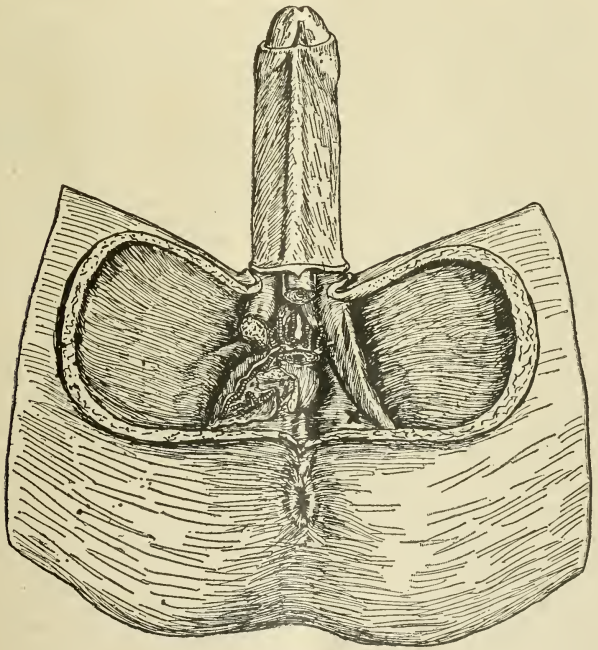
phatics are involved. Some go so far as to discourage operation when there are extensive inguinal enlargements.

Following the suggestions of Dr. Sampson,[7] of Baltimore, of retro-peritoneal dissection in carcinoma of cervix uteri, it seems to me that these patients would have an equally good chance of cure with similar treatment, better, of course, the earlier seen. One should bear in mind the pertinent suggestions of Dr. Sampson in carrying out this procedure.

The fact, too, that the metastasis by the lymphatics is often arrested for some time at the inguinal and femoral glands before extending into the abdomen, seems to add further hope. At best, however, any expression of prognosis should be guarded, certainly until one has seen the extent of the mestastasis.

Treatment.—In the early stages where no mestastasis has taken place, treatment may be limited to thorough currettage or exposure to X-Ray. These growths, however, are seldom seen or recognized until there is lymphatic involvement. The question of how much of the organ should be amputated is often a difficult one to decide. Partial amputation should never be undertaken if the corpora cavernosa have been extensively invaded, since, as Kuttner has shown, nodules of cancerous tissue may be left in the stumps of these bodies, with certainty of local recurrence as well as further mestastasis from these points. We are most usually confronted with the problem of complete extirpation, extensive dissection of both groins, and laparatomy with removal of the retro-peritoneal glands. Most authorities advise leaving the testes, when sure of no invasion, while others advise complete emasculation, chief among whom is Pantalini,[8] who claims better physiological results with total emasculation.

Report of Case —J. D., white, male, age 46, widower, bar-keeper, presented himself on January 2nd, 1906, with the following history: Family history, negative; past history, negative. Has always enjoyed good health, except from time to time has had attacks of malaria. Never had venereal warts or Phymosis. Had gonorrhoea in 1895; cured. In 1896 had a chancre; was never thoroughly treated; followed by sec-



ondary symptoms, which were mild. Sixteen months ago he noticed a small nodule appearing on the site of the chancre, just behind the sulcus, which grew slowly and without discomfort. At the end of six months it had attained the size of a small marble, when it became ulcerated. Four months later he noticed a slight inguinal enlargement. That was six months before he presented himself to me for treatment. From then until he presented himself the growth increased in size rapidly, assuming more and more the characteristics of an epithelioma, with concomitant increase in the growth and extent of lymphatic involvement.

Physical Examination —Medium statue; fairly well developed; somewhat emaciated and cachectic; reflexes normal; chest and upper extremities, negative; abdomen, ague-cake spleen, 5 cm. below costal margin. Situated on the dorsum of the penis was a cauliflower growth 10 cm. in circumference, 4½ cm. in diameter, involving the skin, pepuce, posterior half of the glands, coronal sulcus and corpora cavernosa, to some extent. The corpus spongiosum and urethra were not involved, nor did careful palpitation of the testes, epidydimi and vas deferens, as far into the inguinal canal as the finger could reach, elicit any nodulations. The corpora cavernosa proximal to the growth were apparently free. The growth bled freely upon manipulation and emitted a foul-smelling discharge. The glands were enlarged in both groins, especially the right; freely movable; hard and not painful. The enlargements were confined chiefly to the inguinal chain, but clustered about the femoral opening; one very large gland on the left was situated at, and adherent to, the saphenous opening. Rectal examination, negative. Blood showed slight hæmoglobinaemia; urine negative.

Treatment.—Three weeks of vigorous treatment with mercury and iodides previous to my seeing him without effect. Refused to allow removal of portion of growth for microscopic examination. Operation under ether; time, three hours. Consisted of free removal of inguinal and femoral glands on both sides, with a splitting of the external oblique tendon, in order that the cord could be followed to the internal ring. The penis was then extirpated by Gould's method, consisting of complete extirpation of corpora cavernosa and implantation of the urethra in the perineum at the lower angle of the wound. The stump of the corpus spongiosum was not dissected from the urethra, but the latter was left a little longer and split up, in order to prevent as much as possible a subsequent stricture at the muco-cutaneous junction. Great difficulty was experienced in dissecting the corpora cavernosa from the rami of the pubes and ischii, a procedure accompanied by free bleeding. A permanent catheter was used for five days. Testes were not removed.

It was my intention to further safe-guard the patient by opening the abdomen and removing, if necessary, the retro-peritoneal glands at a second operation. He, however, refused further operative procedure.

Convalescence was uneventful. At the present time—about five months since the operation—he seems to be in perfect health, having gained fifteen pounds, and he has returned to work. He seems perfectly contented with his condition; has no sexual desire, but has felt, at times, an itching sensation in the glans penis. So far, I am unable to demonstrate any recurrence of the growth. I believe, however, that had he permitted me to carry out the entire plan of procedure I could offer him a more than fair hope of cure. The act of urinating is accomplished in a sitting posture, without difficulty.

Microscopically, the growth was carcinomatous, with papillary arrangement. The lymphatic glands from both groins showed mestastases, as well as secondary pyogenic infection.

It occurred to me that the objectionable feature of hemorrhage during complete extirpation of the penis might be eliminated by ligating the internal pubic artery beneath the superficial layer of the triangular ligament, before attempting to dissect the crurae of the penis from the rami of the pubes and ishii. One can scarcely avoid wounding these bodies in the usual procedure, an accident which will prove very annoying, and in some cases of serious import. In order to accomplish this, the preliminary incision through the raphe of the scrotum down to the penile structures is performed as in the Gould method, with an extension of the incision above to encircle the penis, cutting through, at the same time, the suspensory ligament, and then ligating its dorsal vein. The incision below is continued down into the perineum to a point about on a level with the bulb of the corpus spongiosum—dividing the overlying tissues to clearly expose this structure. The two halves of the scrotum are now retracted and the superficial perineal coverings pushed away from the median line, so as to expose the crura of the penis on each side, resting on the rami of the pubes and ischii. The face of the triangular space thus exposed is formed by the anterior layer of the triangular ligament, the base of the triangle by the lower edge of the triangular ligament with the crura of the penis forming its sides and converging above to form the apex. An in-

cision through the triangular ligament at a point marked "X" in the diagram on a level with the bulb and just to the inner edge of the crurae on either side will expose the internal pudic vessels at a point where they divide into their branches to supply the various elements of the penis. If one contemplates implanting the stump of the corpus spongiosum, surrounding the urethra in the lower angle of the wound, only the branches supplying the cavernous bodies and dorsal artery of the penis should be ligated, leaving intact the branch to the corpus spongiosum or artery of the bulb. If the entire bulb is to be removed from about the urethra, then the vessel should be ligated before it splits up into its various branches. The remainder of the procedure is similar to Gould's method.

This method would render the procedure practically bloodless and would greatly facilitate a clean and thorough dissection.

WILMINGTON, N C., May 15th, 1906.

Later:—(March 12th, 1907):

Thorough examination at this time reveals no apparent recurrence of the growth.

M. D.

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Malarial Fever.

By H. C. Buck, M. D., Friars Point, Mississippi.

If one is guided by the accepted theories of today, the question naturally arises, What is Malarial Fever? Hare, in his late work on practice, defines it thus: "By malarial fever we refer to a condition produced by the entrance into, and development in the blood of specific micro-organisms known as plasmodium malaria, the hematozoon of malarial fever, or more correctly speaking, the hamamaeba malaria." Dr. Wm. Krauss, of Memphis, Tenn., has an able article in the J. A. M. A., March 16, 1907, "Problems and Duties in Relation to Malaria," in which he quotes from Thayer, "That malaria is only fever, more or less paroxysmal, divisible into three main varieties, each caused by a blood parasite." In answer to the question, What is Malaria? Dr. Krauss says, "I answer that in the beginning it is an infection of the blood by one or more groups of one or more varieties of blood parasites whose life function in the body is the destruction of hemoglobin."

That "malaria" is *fever* and sometimes fever with a great big F those of us who live in intensely malarial sections will promptly admit, but does that answer the question? Unless we have been misinformed the word "malaria" is an Italian term meaning "bad air." If this is correct then malarial fever is bad air fever, or a pathological condition caused by inhaling bad air, or perhaps we should say, the air in swampy, marshy localities during the summer or hot season of the year. If we admit this we are brought face to face with the mosquito theory, whose advocates claim the Anopheles is the only means by which man can be infected with malaria, and thus we are back to where we started and still do not know what is malaria. Dr. Krauss says, "All practitioners know that in the spring malarias are paroxysmal and as the season advances the recovery from an attack becomes less and less complete. We know that, as a rule, the physician does not get many cases of paludism to treat until midsummer and that the conditions become worse and the anemia more pronounced as the season advances. In the spring a patient can take his quinine "straight" and fare well, but toward the end of the season an ill-timed dose of quinine may produce grave consequences."

As to the last assertion in the above, I, for one, have seen its truthfulness fully demonstrated, and as a result of my experience I make it a rule to begin my treatment of all cases of fever by thoroughly unloading the bowels and overcoming hepatic torpor. If the mosquito theory is correct, the term malarial fever is misleading and should be abandoned. In defference to the advocates of this theory I would suggest the disease be called "Anopheles Fever," as we are taught man can only get the infection from the Anopheles mosquito. I must admit, however, that I favor the old name of malarial fever, as my own experience, together with that of more learned observers, forces me to seriously doubt the mosquito being the *only* way by which man is or can be infected. "Lawson admits that it is possible for malaria to be transmitted in other ways than by mosquitoes, but, he says, to date it has not been demonstrated." Is this altogether true? As evidence of the fact that there is "doubting" of the theory and that it is growing, one has only to read current medical literature. In several recent issues of the J. A. M. A. are reports and extracts from articles by observers in France, Siberia, Greece, and

Africa, all citing instances to show that malaria certainly infects the system through other channels than the mosquito. In an article[2] "Transmission of Malaria" we quote, "Plehn writes from Cameron in Africa that mosquitoes are rare there. Prizes were offered for the Anopheles with fines for houses in which specimens were found, but less than two dozen were encountered during a whole year, and yet, he says, there is nowhere throughout the world a more redoubtable focus of malaria than that colony." Surely we are not expected to believe that a few dozen mosquitoes can so infect a whole colony as to make it as redoubtable a focus as is to be found in the whole world. In the same article quoted above are reports from Siberia, one of which reads, "Grawitz has also stated that among German troops stationed in malarial districts the epidemics of malaria occur in March and April with the maximum in June, and decline during August and September; there are no mosquitoes during the early spring, while they abound during the months when the epidemics die out." How are we to reconcile these reports with the mosquito theory?

In your Journal for February is an editorial criticism upon an article on the mosquito theory by Dr. T. J. Taylor, of Virginia, in which you say, "But when one reads an admirably written argument against the theory of the transmission of malaria by the mosquito, it does seem strange that it is possible for a man to doubt its truth." I do not doubt that the theory is correct, in that the mosquito does carry the infection to man, but I seriously doubt this being the *only* way by which the poison can or does reach the system. Again you say, "Dr. Taylor gives abundant evidence that he is familiar with the most important literature on this subject—facts which, to the vast majority of medical men, seem incontrovertible." While they may *seem* incontrovertible the question is are they really incontrovertible? You say, "Our sole reason for speaking of it is because it appeals to our sense of humor—that one man should question the faith of the whole world." From what I have read I seriously doubt its being "the faith of the whole world," but even if it is, is not history replete with the names of men who in the past have challenged the faith of the world and converted the world to their faith? Even the mosquito theory in its infancy appealed "to the sense of humor" of many members of the medical profession. Verily "The Pendulum Swings."

1 See J. A. M. A., February 2, 1907, "Mosquito Origin of Malaria."

2. J. A. M. A., December 15, 1906.

Some Remarks on Follicular Tonsilitis, Scarlet Fever and Diphtheria.*

By Dr. William St. John, Bristol, Tennessee.

The father of medicine said experience is fallacious and judgment difficult. In no class of cases is this aphorism more true than when a doctor is called upon to differentiate the throat troubles of the young.

Since the days of Aretaus of Cappadocia which was about fifty 'anno domini up to the present time, there has been confusion and much difference of opinion as to the etiology and symptomatology of these allied affections. Even today, the most modern text-books tell us that follicular tonsilitis or lacunar tonsilitis is common in childhood, that 'tis an acute infectious disease, and contagious beyond question, that it attacks different members of a family in quick succession, that it begins with marked constitutional disturbance, a high fever, vomiting and enlargement and tenderness of the lymphatic glands, with a yellow exudate on the tonsils, and with a tendency of this exudate to rapid coalescence, that this membrane is detachable and does not leave a bleeding surface, that the sudden onset, failure of the membrane to spread to other surfaces, especially to the uvula, urine free from albumin, is the diagnostic difference from diphtheria. Yet other authorities state that 'tis *impossible* to make a certain diagnosis without a culture test.

This so-called follicular tonsilitis is a simple trouble, running its course within a few days, ending in recovery, which is progressive, but usually gradual.

The culture test usually shows a mixed infection.

This form of tonsilitis was described by Neimeyer as "Angina Catarrhalis."

Diphtheria is classified as catarrhal, fibrinous, phlegmonous, mixed or strepto-diphtheria, and fourth septic or gangrenous diphtheria or septicaemia.

The catarrhal due to the "Klebs-Loeffler" bacillus; the fibrinous due to the same germ, uninfluenced by the action of any other organism.

Its symptoms are local, due to the presence of the false membrane, and to the toxins produced by the germs.

In its benign form 'tis the least dangerous, producing few general symptoms.

In the catarrhal form there may be no constitutional disturbance, and very little local. A mere redness of the fauces and tonsils, this is usually transitory, clearing up in a few days. The explanation of this may be that the germs are of a very low de-

*Read before the Bristol and Sullivan county Medical Society in January, 1907.

gree of virulence, and do not manufacture a highly potent toxin, or else the patient has a high degree of resistance, or some inherent immunity.

The strepto-diphtheria, as the name indicates, is a mixed infection. The septic or gangrenous form of diphtheria, known as septicaemia, is not due to the action of the diphtheria bacillus alone. It has been shown by experiments that when the diphtheria germ is the dominating factor that septicaemia rarely, if ever, occurs, that streptococci must be associated with the disease to produce the septic state.

The diphtheritic classification above given applies to the *nose* as well as the throat.

In true diphtheria, as we have been taught to believe, and as we have generally seen clinically, there is sudden onset, early and marked enlargement of the cervical glands, with a temperature in the beginning *slightly* elevated, and usually remains low during the whole course, that the membrane of a true diphtheria is of an ashen gray color, first on tonsils, soon extending to uvula and soft palate, these latter absolutely pathognomonic. These patches consist of a membrane, surrounded by a red border, hard to remove and leaves a raw, bleeding surface. Sometimes there is present an acrid muco-purulent *nasal* discharge, a comparative absence of pain. This disease is regarded as infectious and communicable.

That diphtheria can have a sudden and abrupt onset, in the midst of perfect health, with marked constitutional disturbance, even with convulsions with an initial temperature of 104 degrees and a rapid pulse, I *firmly believe.*

The angina of scarlet fever has a very sudden onset, temperature high, local symptoms, a subordinate feature, may or may not have the rash on the second day, strawberry tongue, usually on the third day, generally a diffuse bright redness over the throat, tonsils enlarged, and may be covered with mucous, and sometimes with many yellow points. Nothing usually visible on soft palate. A pulse faster in comparison to the temperature than in any other disease.

Two other throat affections should be mentioned in connection with this. The first known as pseudo diphtheria or diphtheroid angina, or the more popular name now—diphtheritis. Second is Vincent's Angina. These two diseases so closely resemble true diphtheria as to require a culture test to differentiate. This Vincent's angina exists in two forms. One is diphtheroid and one is ulcero-membranous. Vincent *isolated the germ* which causes the disease that bears his name. He claimed it occurred more often in those children in whom there was an existing stomatitis. This disease was shown to be transmissible, by contagion, or indirectly by towels, drinking utensils, etc.

Recent studies by Gordon, Horner and Andrews on the evolution of the streptococci pathogenic for man have shown a number of varieties of these streptococci, and their classification as streptococcus anginosus, streptococcus salivarus, streptococcus Fecalis. They have endeavored to show that these germs are of a different virulency, and each variety has some singular selective action. They came to the conclusion that scarlet fever was of streptococcal origin, but not due to any one specific streptococcus. This view they claim explains the occurrence of scarlet fever after burns and surgical operations, without known exposure.

From the above remarks it will be seen how very difficult it is from a clinical standpoint to make a positive diagnosis, especially in these atypical forms.

Before the days of antitoxin it was a matter of small concern, except for the name, what the various things were diagnosed, because all these allied affections are communicable, all at times simple and ephemeral, all again serious, with many and varied complications, but now the diagnosis is of the utmost importance, because in some instances 'tis a matter of life and death, and the life depending nearly always upon the early administration of the modern method of treatment, and the plea of this paper is that in all acute throat affections of children, under twelve years of age, where there is an exudate on either tonsil, that without hesitation or delay an initial dose of 2000 units antitoxin be given and a conditional diagnosis of diphtheria be made. The doctor who gives 2000 units of antitoxin in acute throat troubles of children on the first day often saves the life of the child. If the case is seen on the third day of the disease four to six thousand units will be necessary, if on the fourth day eight thousand units should be given, if on the fifth day six to eight thousand, and repeated in six to eight hours. On the sixth day it is useless to give antitoxin, as the toxaemia is so great that the antidotal action of the serum would scarcely affect it.

The testimony of the best men in the medical profession, all over the world, is that diphtheria antitoxin never does any harm. Adults seem to suffer more from articular pains and also from urticaria than children. Most adults, however, unless the attack is very severe, recover from diphtheria without the use of antitoxin.

The rash afteruse of antitoxin in children is of no significance. Cleanliness at the seat of injection will avoid abscess.

Antitoxin never causes paralysis. There is one point in the late administration of antitoxin, and that is that it will prevent the further absorption of toxines, which in severe cases are still in process of rapid formation in extremely large quantities. The great object in the early administration of the serum is to forestall the toxins and prevent them from uniting with the body cells.

Antitoxin has no effect on the toxins, when they have once combined with the tissue cells. In this connection let me say that a great many physicians are now using diphtheria antitoxin in treatment of *scarlet fever*, and they say they are surprised at the excellent results. The local treatment of the throat in older children and adults seems to be a good practice.

There is one other point, and that is the importance of rest in children who have had diphtheria, that they should be gradually raised up by the addition of pillows. This precaution may save the sudden heart failures, which some of us have doubtless seen.

All purgatives during an attack of diphtheria in children should be avoided. Strychnine, if indicated, should not be omitted, and it is wonderful what tolerance these patients have for this drug.

Brandy judiciously used is sometimes invaluable.

The paralysis of diphtheria is, as a rule, amenable to treatment by rest and the intelligent use of strychnine.

The immunizing precaution should not be neglected. This generally gives safety for six weeks.

With the oral method of anti-diphtheric serum I have had no experience, but I see from the late authorities it has been quite as successful as the hypodermic method.

The intravenous injection is now in vogue, and is claimed by those who have used it to be far more efficacious, especially in pharyngo-laryngeal cases. There are two methods; one by incision, and one by direct puncture. The median cephalic vein being the one selected. Cairves, who first tried the intravenous method, maintained that in malignant diphtheria, especially in cases of broncho-pneumonia following diphtheria, there is a rapid disappearance of all signs of the toxaemia, of glandular enlargement, and marked diminution of restlessness. He further says that large doses, given intravenously, will restore cases apparently moribund. This is a method I have never used or seen used, and I hope the occasion will not have to arise. However, in desperate cases I do not know but that I should recommend it.

I think it the doctor's duty to educate the people with whom he comes in contact in regard to the wonderful benefits and the harmlessness of this marvelous discovery when used intelligently.

I find that there is yet ignorance and prejudice against antitoxin, and it is looked upon by many as a dernier resort.

I will admit that it is not an easy matter to do away with old beliefs, yet if we, locally speaking, ever hope to practice our profession in a modern manner we will of a necessity have to use all means to enlighten the people.

This is a glorious age in medicine. I fear that none of us appreciate it. We have just begun to unlock the secrets of nature. One great man says "that we have the door slightly open, just peeping in." When I look back over the history of medicine I wonder how they ever had the heart to practice at all. They had but little handed down from the Greeks, still less from the Roman civilization. Our knowledge practically begins with Sydenham, in the sixteenth century. Think how long it has taken us to gather the few truths that we now possess. The trials, tribulations, disappointments, antagonisms, and mistreatments surpass the Children of Israel from the time they left the land of the Pharoahs to the days of the Man of Sorrows.

I hope these few remarks tonight will elicit a good free-hearted discussion.

There are many yet dark continents on the map of medicine, and let us hope that there will be the medical counterpart of Columbus, Raleigh, and Cortez and Stanley, who later on will bring back the glad tidings of serum discoveries for other death dealing diseases that may prove as effectual as that of Behring.

In conclusion, that I may impress upon you all the main point of my remarks regarding the use of antitoxin, pardon me if I use the following quotation:

"If it were done, when 'tis done,
Then 'twere well—
It were done quickly."

Remarks on the Modern Treatment of the Toxemia of Pregnancy.*

By John F. Winn, M. D., Richmond, Va., Professor of Clinical Obstetrics University College of Medicine, Obstetrician to Virginia Hospital, etc.

No subject in the range of obstetrics today is attracting greater attention of obstetricians than that of toxemia of pregnancy; and, notwithstanding the great amount of work expended in the past few years to find the true nature of this autotoxic state, we are still ignorant of the source of the poison

*Read before the Medical Society of Virginia at Charlottesville, Oct. 9-12, 1906.

and the exact nature of its action. It is pleasing to note, however, that the dawn is breaking, and we cherish the hope that the treatment of this condition will soon be less empirical and uncertain.

It has been my fortune or misfortune to see quite a good number of these cases in consultation and in my own private practice, as well as in my obstetric clinic at the Virginia Hospital; and the object of this paper is to bear testimony, briefly, to the efficacy of those generally accepted lines of treatment which seem to have been followed by the best results.

In the beginning, I especially wish to emphasize two points:

1. The unquestionable value of prophylaxis and elimination.

2. The importance of early, unremitting and systematic medical supervision of every pregnant case.

Since the intelligent, prophylactic and active management of any disease is based on its etiology and pathology, it is well to refer briefly to what is accepted as the most plausible theory for the cause of this condition.

Toxemia of pregnancy is now generally believed to be caused by a disturbance of nitrogenous metabolism. Ewing, of New York, who for several years has assiduously studied this subject, was the first to demonstrate hepatic lesions of three clinical manifestations of the toxemia of pregnancy, viz: hyperemesis gravidaum, eclampsia, and acute yellow atrophy. He believes that this disturbance of nitrogenous metabolism is a failure of the oxidizing capacity of the liver; and that the proteid derivatives which are normally combined by the liver into urea, are no longer thus combined, but circulate freely in the blood as poisons, and in some degree excreted by the kidneys.

Stone, also of New York, in a recent paper, agrees with Ewing and affirms that the changes in the kidneys are essentially secondary to the lesions in the liver; and further, that enough has already been found to warrant the definite statement that the conditions designated as hyperemesis gravidarum, eclampsia and acute yellow atrophy are one and the same disease.

At the recent meeting of the New York State Medical Association the modern aspects of pregnancy-toxemia were discussed in the form of a symposium, and the consensus of opinion was that "this failure of oxidation in the system can best be determined by a study of the nitrogenous partition in the urine, and by observing that the nitrogen passed is not in the form of urea, but in various precedents of this substance, the most prominent of which are the ammonia and amide substances. It is to be borne in mind that in order to determine this change in the urine a twenty-four hour specimen must be taken, and it must be known what the patient has eaten, for on a full diet there will be eighty-five per cent. of urea nitrogen in a normal individual; whereas, on a low diet, such as is frequently given in pregnancy on account of nausea, the urea nitrogen may not exceed more than sixty per cent." It will be observed, then, that this disturbance of nitrogenous metabolism in the liver does not always lead to a diminution in the total amount of urea excreted, but rather to a diminution of the ratio between urea and the total nitrogen in the urine.

In view of this discovery, it would appear that we must, when examining the urine, look *not so much to the loss of urea as to the excess of ammonia*, for the danger signal; and, according to J. Whitridge Williams, of Baltimore, a marked increase in this ammonia co-efficient in cases of pernicious vomiting of pregnancy indicates the existence of a most serious toxemia, which, if allowed to continue, will be found to be accompanied by lesions of the liver and other organs inconsistent with life; and under such circumstances, abortion should be induced as soon as the condition is detected, since it offers the only hope of checking the toxemia, and saving the patient's life. While his experience is not sufficient for him to lay down a definite rule as to how great an elevation of the ammonia co-efficient is consistent with the safe continuance of pregnancy, he has ventured to suggest that an ammonia co-efficient of ten per cent. should be taken as a danger signal, and as soon as it is reached, immediate invention should be resorted to.

While watching for this danger signal in the urine we must follow closely the lines of faulty metabolism, the well known clinical evidences of which are high arterial tension, headache, dizziness, gastric disturbances, mental and physical torpor, disturbances of the bowels—as intestinal toxemia, disturbances of the liver—as jaundice, and of the skin—as pruritus. Should any of these be present, we at once, in view of modern findings, must look to the urine for the ammonia co-efficient, and not alone for the presence of albumen and the amount of urea eliminated, because a low output of urea has been shown to be an unreliable index of the autotoxic state. Stone, however, has recently reported four cases of pernicious vomiting and three cases of the pre-eclamptic type in which the ammonia nitrogen was increased in only one case, and concludes that the ratio is too variable a quantity to be relied on as an index of the gravity of the toxic condition.

Edgar, while believing that this clinical test seems to promise more than any of the previous ones offered, states in a recent paper that as yet he does not believe that sufficient material has been collected to permit of formulation from the percentage of total nitrogen excreted as urea-nitrogen, ammonia and amido-acid or undetermined nitrogen, any rule for guiding us in the severity of pregnancy toxemia.

It is evident that with the extreme gravity of this dreaded condition staring us in the face, our responsibility as obstetricians has not been lessened, and, undoubtedly, it behooves us to be even more zealous in our care of these truly unfortunate patients.

As would be expected, the urine is generally scanty and the specific gravity high. Only a trace of albumen may be present while the amount of solids is below the average. Leucin and tyrosin are occasionally found and when found are of the gravest import and are to be taken as guides for prompt and heroic measures.

From what has gone before, it is very evident that a working formula has not been settled upon, but it is equally clear that the urinary analysis as ordinarily made in the doctor's office is wholly inadequate for all cases; and it follows as a necessary consequence that if there be any doubt at all regarding the diagnosis, nothing short of a thoroughly conducted laboratory analysis will suffice to determine the products of a disturbed nitrogenous metabolism.

PROPHYLACTIC TREATMENT.

The treatment of this condition begins with the most rigid prophylaxis from the time the pregnancy is suspected. I do not think I put it too strongly when I say that the proper management of these cases necessitates, in some instances, nothing short of a revolution in our medical ranks. Too often is there exhibited an indifference to the dangers of pregnancy that is appalling and well nigh culpable, as proven by the fact that often a specimen of urine is not even asked for. If, perchance, the patient of her own volition brings it to her physician, it is not always tested. How many of us are sometimes satisfied with one, or at best, two, urinary analysis, and these in the latter weeks of gestation.

With the present knowledge of pregnancy-toxemia, I cannot insist too strongly upon the great necessity for the education of our patients concerning the autotoxic state. They should be instructed to heed the earliest symptoms of toxemia, and we should make it obligatory upon them to report promptly any symptom which indicates a departure from the normal condition. For the reason that many of the milder, as well as the more severe, types of toxemia have their origin as intestinal intoxication, we should always impress upon patients the importance of keeping the bowels regular, and upon the taking of an active cathartic systematically, whether indicated or not; and especially should they be told the importance of keeping a close watch upon the total amount of urine excreted daily, for diminished urinary excretion is known to be of greatest clinical value. Not only encourage the drinking of a liberal amount of water at all times, even before the kidneys "go on a strike," but make it a definite and written order that not less than three or four pints be drunk daily. Seek to remove the prevalent belief among the laity that the "morning sickness" has no special significance; and, *above all, teach the laity the importance of consulting a physician as soon as pregnancy is known to exist, and acquaint them of the danger of deferring this duty until headache and edema develop.*

Even in normal cases urinary examinations should be made once in four weeks up to the seventh month, and as often as every two weeks during the remaining period of gestation, and oftener, if suspicious symptoms develop. It is a good rule to designate the exact day on which the specimen of urine is to be brought to your office. Select one day for urinalysis. Specify the number of ounces to be brought in a clean bottle. I need hardly say that a few systematic rules along this line will help to impress upon the patient the importance of keeping her physician informed as to her condition.

TREATMENT OF PERNICIOUS VOMITING OF PREGNANCY.

All vomiting in a pregnant woman is to be regarded with suspicion. If it is only the "early morning sickness," no great alarm is felt, but when the vomiting is persistent, food being rejected at all times, possibly twenty or thirty times in the twenty-four hours, and later mucus, bile and even blood, with evident signs of progressive malnutrition, no time should be lost in examining for evidences of hepatic insufficiency as well as hepatic necrosis; upon the finding of which by urinalysis the most active methods of elimination are to be vigorously instituted, and, if no improvement is noted, immediate preparation must be made for the complete emptying of the uterus. In this connection I am reminded to say it is very important that all portions of the fetus and placental tissue be removed, for a case has been reported in which a small part of the placenta was left and the vomiting continued until it was removed.

Vomiting in the later periods, it must be borne in mind, is more to be dreaded than

that in the early weeks of pregnancy. It is to be regarded as particularly suggestive of the toxic state, either eclampsia or acute yellow atrophy of the liver, and demands the closest vigilance and treatment.

Whether dilatation and curettage shall always be done by the rapid method, as has generally been practiced, there is beginning to be some doubt in the minds of not a few. The shock incident to rapid dilatation may itself kill, to say nothing of the increased danger of the anaesthetic when exhaustion is already extreme, but we will refer to this later. For these reasons the gradual method of dilatation has much in its favor, so much so that Norris has recently ventured to say that if possible, under modern aseptic technique, to secure a sterile laminaria tent, it might be considered some day suitable for this purpose. We believe, however, that the hydrostatic bag meets every indication for a slow method, and is not likely to be supplanted by a resurrected and possible sterile laminaria tent.

Elimination is without doubt our sheet anchor, and of the eliminating measures I wish especially to attest the value of repeated colonic irrigation with normal salt solution, with the retention of at least a quart. I have used as much as thirty-five gallons at a time, and it is a measure which should be promptly and efficiently employed. In some instances colonic irrigation will have to give place to hypodermoclysis and intra-venous infusion, as the system may not be able to absorb from the bowel. When the patient is unable to swallow or retain Epsom salts, this should be given in large and repeated quantities thrown slowly into the descending colon by means of the rectal tube. Next to flushing the colon this is a highly serviceable procedure, and should always be availed of.

The utter uselessness, in toxic vomiting, of the innumerable remedies heretofore used with the hope of curing the disease, cannot be too strongly emphasized; and therefore, I believe we should be slow to trust in specific medication, whether internally or locally used. For that reason drugs are not referred to, except those which rank as standards for elimination, the first to be mentioned being calomel, and next the saline cathartics; these should always be given early and with a free hand.

The great danger of delay in the treatment of these cases should ever be borne in mind. To wait until the pulse is small and rapid, the temperature is elevated, epigastric and uterine tenderness present, may mean "too late!" Certainly, if delay has been protracted to what is generally known as the "third stage" of pernicious vomiting, death is most sure to follow. In this stage the vomiting may disappear, the patient may be able to retain food, and, to the patient's friends, there may be offered a delusive hope that recovery is near; but, alas! the weak and rapid pulse continues, thirst becomes extreme, cerebral symptoms supervene, and coma is but the beginning of the end.

Many cases of persistent vomiting in the early weeks are relieved by dilatation of the cervix to thoroughly rupture its circular fibres. If in doubt then as to the differential diagnosis between neuropathic and toxic vomiting, it is well to try the cervical dilatation before resorting to curettage. It is remarkable how much instrumental treatment the uterus will tolerate in some of these cases. An instance is recorded where the internal os of a primigravida was dilated, the cervical canal was curetted, the cervix itself was scraped free from erosions, pure carbolic acid was applied to the cervix and canal—all of which relieved the symptoms without interrupting the pregnancy.

In concluding this part of the subject, I believe that no man can definitely assert that every case of obstinate vomiting of pregnancy is of toxic origin; yet because so many cases have been shown to be caused by hepatic insufficiency and its resultant toxemia, I am inclined to the belief that we shall reap the best results if we direct our treatment in all cases toward the correction of hepatic insufficiency without waiting for the classical toxic symptoms to supervene.

PROPHYLAXIS OF ECLAMPSIA.

For the pre-eclamptic state, the same prophylactic treatment indicated for the toxemia of the earlier months of gestation is to be as rigidly observed; for it is well known that the eclamptic tendency is proportionate with the advance of pregnancy and the increased fetal metabolism. All cases cannot be treated alike. Each case must be treated individually. In general, one must watch not only for the old and well-known signs of kidney failure, but for the general symptoms of a surcharged circulation, viz.: high arterial tension, headache, dizziness, etc. If in spite of a strict milk diet, which is the keystone of the preventive treatment, abundant stimulation of the four eliminative processes (bowels, kidneys, skin and lungs), and iron, possibly in the form of Basham's mixture—if, in spite of these, the pre-eclamptic condition becomes urgent and rapidly progressive, the induction of labor is unhesitatingly indicated. This course of procedure is sustained by the statistics of the International Congress of Obstetrics and Gynecology in 1896, as reported by Charles, of Liege Maternity, who stated that every mother recov-

ered and seventy-five per cent. of the children were saved.

As to the choice of method for the induction of labor under these conditions, I am partial to the bi-manual dilatation of the os after the cervical canal has been sufficiently opened by other means (as steel dilators or hydrostatic bags) to admit of its performance. It is very important to bear in mind that the os must be completely dilated before an attempt is made to effect delivery.

ACTIVE TREATMENT OF ECLAMPSIA.

In the presence of convulsions no routine treatment can be pursued; each case must be managed in accordance with the indications present. The writer has succeeded better with a combined treatment—that is, one that controls the convulsions, eliminates the toxins, and effects the delivery under complete anaesthesia by some rapid method which promises the least injury to the patient.

To control the convulsions, chloroform is the most reliable if given before the seizure is on. It is useless to administer it while the respiratory muscles are fixed. The long-continued use of chloroform is to be avoided, however, on account of its depressing effect on the heart. I believe I have seen cases die because of the too lavish use of chloroform. Next in efficiency to chloroform for controlling the convulsion is veratrum viride, especially if the pulse is strong and rapid. Given guardedly, ten to twenty minims, initial dose, of the fluid extract, hypodermically, followed by five or ten minims every half hour, until the pulse is reduced to sixty per minute, the convulsions will be held in check. The writer is partial to the veratrum treatment, and up to the present time he has never observed any untoward effect from its use. Should its depressing action go too far, whiskey is a ready and certain antidote. Not only does veratrum control the spasm, but under its use the cervical ring is relaxed, and diaphoresis and diuresis are promoted as well. While the patient is under the influence of veratrum, not only the eliminating measures, but the steps necessary for hastening delivery can be carried on at the same time.

Pilocarpine is mentioned only to be unhesitatingly condemned. Morphia, I believe to be contraindicated, notwithstanding the fact that many good obstetricians in this country and abroad enthusiastically recommend it.

In chloral hydrate we have a remedy of the greatest value, not only has it the endorsement of the American, but of the French and German obstetricians as well. When it is remembered that Winckel saved eighty-five out of ninety-two cases with large doses of chloral, this remedy must always hold a high place in the treatment of the convulsive stage.

Early and active catharsis must be obtained by croton oil or compound jalap powder or, what is better than all, calomel followed by large and repeated doses of sulphate magnesia. For the post-eclamptic stupor, the writer has succeeded best with large quantities of a saturated solution of Epsom salts placed high in the colon through the rectal tube. Nitroglycerine has its indications and is frequently invaluable as a diuretic and anti-eclamptic.

Colonic irrigation by the long rectal tube is as efficacious in the presence of convulsions as in the prodromal stage. It is certainly as strongly indicated. After several gallons have been used, one quart or more of normal saline should be allowed to remain in order to stimulate the activity of the skin and kidneys. There is no doubt of the fact that colonic irrigation, properly employed, is a prompt and efficient hepatic stimulant through the medium of the portal circulation, the best evidence of its usefulness being the copious flow of bile that comes down after the irrigation is ended.

Venesection is recommended only when the pulse is very full and strong, and I must confess to a feeling of mistrust in this measure which formerly was almost universally employed in eclampsia. Although many authorities continue to advise it, among them, Hirst, Grandin, Williams, Newell, Flint and others, yet there are some, Edgar, Cragin and Davis, who seldom make use of it.

To promote diaphoresis I prefer the hot-air bath to the hot pack. The objection to the latter is the difficulty of knowing whether the moisture on the skin is due to the relaxation from the heat or from the steam of the wet blanket. The hot-air bath can be secured in a few minutes by the use of a section of stove pipe with an angle placed over a good lamp, the heat being conducted under the bed clothing which is well pinned down to the bed. Care must be exercised, however, in using the hot-air bath, for its prolonged use may cause great depression.

Oxygen is invaluable as a general stimulant for encouraging elimination through the lungs and for supporting life in the post-eclamptic stupor, and for these reasons a tank of oxygen should be on hand, if possible, in every case of eclampsia.

The obstetrical treatment, from the American point of view, is the emptying of the uterus as early as possible, and by the most rapid method consistent with the integrity of the mother's parts. American obstetricians are led to this belief by reason of the

fact that the mortality of post-partum eclampsia is much lower than that of the ante-partum or intra-partum variety. In addition, convulsions generally cease after delivery. In view of the uniform American plan, it is hard to understand why the German, French and English schools rely on the medical treatment until the cervix is well dilated by the natural processes before they hasten delivery by forceps or version.

The great obstacle to rapid delivery is of course the undilated cervix, both before labor sets in, and even during the early part of the dilating stage. This condition is what has given rise to the divergence of opinion as to the best treatment to pursue. Statistics show that by following the expectant or "do-nothing" plan nearly all the children, and about one-third of the mothers, are lost.

As to what method shall be employed for hastening delivery we have a choice between the hydrostatic bag, instrumental and manual dilatation, and multiple incisions followed by forceps or version, craniotomy if the child be dead, and finally Cesarean section. With reference to the latter, Charpentier reports a mortality of 36.26 per cent., a very high rate; and, on account of the many objections attending this method, chief of which are atony and hemorrhage of the uterus, I do not believe it will ever be the operation of election.

The most popular method today is the artificial dilatation of the cervix and the prompt extraction of the fetus; provided, always, that it is done in a scientific manner: meaning the continued and watchful respect for the cervical barrier, coupled with the scrupulous avoidance of everything suggestive of that horrible and brutal *accouchement force* recommended by the older obstetricians. Clinically, the effacement of the cervix may best be accomplished by (1) rapid method within one hour and a half, (2) slow method, when more time is at our command. For the rapid dilatation the case may demand multiple incisions or instrumental divulsion by some instrument of the Bossi type, or, better still, bi-manual stretching of the cervical sphincter. Multiple incisions are best adapted for those cervices that are very tense, especially in primiparæ and before the end of the thirtieth week of gestation, and in those explosive cases which demand the most urgent and rapid delivery; but unless the operator is very competent, it would be better not to operate at all. The Bossi instrument I consider a very dangerous one, except in the hands of an expert. To Dr. F. S. Newell, of Boston, we are indebted for a new dilator of the Bossi type, which is destined to supplant the latter because of its greater safety. Its chief advantage consists in the fact that the power must be applied by the hand, and the instrument is therefore under the absolute control of the operator.

The ideal method is the bi-manual dilatation, because the force is directed from above downward in imitation of Nature's bag of waters, and because there is little or no danger of rupturing prematurely the membranes, and of displacing the original presentation and, finally, because with the hands traumatism of the uterus is reduced to a minimum.

If a slow method is indicated, the Voorhees' hydrostatic rubber bag of the Champetier de Ribes type, is heartily commended. The set consists of four sizes, easy of introduction and positive in results.

Whether the Voorhees' hydrostatic bag is used in the slower method, or the steel instruments in the rapid method, neither device should be relied on to effect complete dilatation, but only as a preliminary measure and a preparation for dilatation with both hands and artificial extraction of the fetus.

Finally, I would let the last word be elimination.

Fractures of the Base of the Skull.—Bowlby (British Medical Journal) says that the three most important features of fractures of the bases are: 1. Escape of blood. 2. Escape of cerebro-spinal fluid. 3. Injuries to the nerve. In fractures across the middle fossa (the most frequent site), all three symptoms may even be absent; the escape of blood occurs only if the membrana tympani is ruptured, and there will be no escape of cerebro-spinal fluid unless the dura is broken together with the membrana tympani. The escape of cerebro-spinal fluid must not be confounded with the escape of the normal mucus of the internal ear. The former is characterized by its copiousness, its watery character, low specific gravity and the presence of sugar. The auditory nerve is the one most frequently ruptured and only rarely does healing take place; the facial, on the other hand, usually regenerates. In fractures of the anterior fossa the blood escapes through the nose or pharynx. It must be remembered that the blood may arise from an injury in one of these cavities. The escape of cerebro-spinal fluid is usually not noted in fractures of the anterior fossa, because it is invisible and passes into the pharynx. Any of the first six nerves may be injured. The posterior fossa is less frequently injured than the other two because of the thickness of the bones. The diagnosis of basal fracture in this fossa is very difficult because it pos-

sesses no opening through which blood or cerebro-spinal fluid may escape. Occasionally the evidence of hemorrhage may be noted by the presence of a hematoma in the occipital region. Injuries of the nerves are very rare.

The most common causes of death in basal fractures are hemorrhage, sepsis and injury to the brain. To prevent sepsis it is important to keep the external communications scrupulously clean. This is more easily done in the internal ear than in the nose or pharynx. The after consequences of cranial fracture, *e. g.*, epilepsy, are briefly discussed by the author.

Cyanosis.—Oliver, in The London Medical Lancet, calls attention to a form of cyanosis of a somewhat fleeting character, attended occasionally by distressing symptoms, and while comparable in its physical appearances with the cyanosis observed in congenital heart disease, yet is free from cardiac lesion. It is the physical sign of a toxæmia, and the absence of heart disease and the fact of the rather rapid appearance and equally rapid disappearance of the blueness point to the operation of circumstances which can be frequently controlled. The cyanosis is of the nature of an autointoxication with intestinal poisons, or it is the result of the ingestion of some of the synthetic drugs of the aniline class, many of which form the principal ingredient of proprietary medicines. The cyanosis of enterogenous origin is the result of the action of sulphur bodies or nitrites upon the hæmoglobin of the blood, converting it into methæmoglobin—a substance in which, although oxygen is present, it is so firmly retained that it cannot be disassociated for the requirements of the body. Aniline workers are subject to cyanosis, especially workers in nitro-benzene factories. Aniline vapors, when inhaled, produce symptoms more slowly than when the salts are ingested. The symptoms are the same—nausea, vertigo, oppressive sleepiness, muscular pains, and a sense of weakness with tremors and anæsthesia. The skin becomes blue, the buccal mucous membrane, the gums, the conjunctivæ, the lobes of the ears, the face, the feet, and the hands showing the discoloration best. The cyanosis is not due to venous stasis, but depends upon a colored substance in the blood, probably methæmoglobin.

Raynaud's disease is a peculiar form of local cyanosis: blueness of the hands and feet. Three stages are described: local pallor (syncope), local cyanosis (asphyxia), and gangrene. The pathology of the conditions is unknown. The causes of tissue death are obstructed arterial circulation, impeded venous flow, obstructed capillary circulation owing to diseased walls of vessels, and death of the cells by poisons due to microbes. It would seem as if some peculiar local change occurred in the tissues of the part affected in Raynaud's disease, whereby, either in consequence of the contraction of arteries and veins due to some central nervous condition influencing the vasomotor center, or in consequence of altered chemical states of the blood or pathological changes in the walls of the minute vessels, that either of these conditions singly or combined, but accompanied by poisoning of the cells of the part, either through their own toxins or by poisons brought to them, is capable of causing death of the tissues and the formation of a gangrenous slough.

New Method of Jejunostomy.—Chevier (Gaz. des Hopitaux) in an article, dealing only with the technique of the operation, describes and well illustrates a trans-omental operation, with a vertical suspension of the jejunum, and the formation of two transverse folds in the gut wall, which, together with a sphincter formed from the rectus, gives an opening that does not leak and yet allows the passage of the duodenal contents. A 10 centimeter incision is made 2 centimeters to the left of the median line, with its middle opposite the umbilicus. The great omentum is divided and the jejunum is picked up about 30 centimeters below the end of the duodenum. Beginning 2 centimeters from the mesenteric attachment on either side a transverse fold about 2 centimeters deep is turned in with fine silk. This fold is turned in above and below the intended point of opening. Two traction sutures are then placed on either side of the intended opening and after the gut has been stitched in the peritoneal opening, these traction sutures are crossed over and brought out behind narrow strips of the rectus muscle and when the skin is finally closed these traction sutures are drawn snugly and anchored, thus throwing the strips of rectus muscle to the opposite side of the wound and forming the sphincter. Several days later, after healing of the parts, the opening in the gut is made with the thermo-cautery.

Several efforts have already been made, says the Medical Record, to abolish the use of absinthe in Belgium, but the opposition of the manufacturers and retailers involved has always been too strong. A short time ago, however, a prohibitory bill passed both houses of the Legislature, and from now on the importation, manufacture, transport, sale or storing for sale of absinthe or any substitute for it is illegal. The penalties are substantial.

Charlotte Medical Journal

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No. 36 South Tryon Street, - - - -

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TRANSACTIONS OF THE NORTH CAROLINA MEDICAL SOCIETY.

Dr. J. Howell Way has surpassed himself in editing the 1906 edition of the Medical Society Transactions. We hereby are acknowledging receipt of copies of same which have but recently come from the press of the well known printers, Edwards & Broughton, of Raleigh. The binding and general make-up of the volume are uniform with that of previous volumes. It, however, is greatly enlarged, containing 880 pages, with several illustrations, one of which Dr. Way facetiously remarks ought to create a demand sufficiently great to exhaust the edition very quickly. A number of new features have been introduced into this volume which increase its value for references in many ways. It contains among other things going to make up the general excellence of the book an alphabetical list of members of State Society, with county in which local membership and residence indicated, a roster of members of the North Carolina State Board of Health from its organization in 1877 to 1906, and a tabulation of the membership of the State Society year by year from its organization in 1849 to 1906. To the credit of the able ex-Secretary, Dr. Way, the journal believes it only just to call attention to the phenomenal growth of the Society under his administration. From a membership in 1903 of 530 it increased rapidly to 1234 in 1906—a growth which should be a source of extreme gratification to those who have the welfare of the Medical Society at heart. We believe —and we have no hesitation in giving him full credit for it—that to the honorable ex-Secretary, more than to any other one man, is due the credit for this wonderful progress. Under the re-organization system he has untiringly made it his highest and best endeavor to build up the society. How well he has succeeded the figures and the general excellence of society work will show.

We congratulate Dr. Way on the very superior quality of the 1906 edition of the Transactions. No doctor in the State should be without one.

FURTHER EXPERIMENTAL INVESTIGATIONS INTO THE GROWTH OF TUMORS.

Experiments recently reported by Loeb (University of Pennsylvania Medical Bulletin, July, 1906) show the development of carcinoma and sarcoma in mice inoculated with a carcinomatous tumor of the submaxillary gland of a Japanese mouse. The tumor had a gland-like arrangement; ramifying ducts were surrounded by alveolar structures. Two varieties of cells were present; cuboidal or cylindrical epithelial-like cells which formed alveoli filled with colored material, and cells which had a finely or coarsely vacuolated character. Both varieties of cells were found mixed in the same alveoli. A number of mice were inoculated with the original tumor. From the tumors which developed in these mice a second generation was inoculated, and from the tumors thus produced a third lot of mice were inoculated. Histological examination of the growing tumors in each generation showed, in addition to the gland-like structures, a typical spindle-cell sarcoma.

The appearance of a sarcoma after the transplantation of a gland-like tumor is very surprising. It might be explained in three ways: (1) In the original tumor there was a sarcomatous component already present. (2) The growth of the gland-like tumor was in some way the cause of the previously quiescent or only regenerative connective tissue assuming a sarcomatous growth. (3) A transformation of the gland-like structure into spindle-celled tissue occurred, the latter being able to produce connective tissue fibres. The first possibility can almost with certainty be excluded for the following reasons:

Three parts from the relatively small original tumor were examined microscopically. They did not show spindle-cell sarcoma. Furthermore, several transplanted pieces were examined soon after the inoculation and spindle-cell sarcoma was nowhere present. Which of the other two theories is the correct one cannot at present be decided with certainty.

The original tumor grew very slowly. In the second generation the period of latency lasted approximately two months, the growth afterward being very slow. In the third generation the period of latency was very brief, one to two weeks being the average time, relatively large tumors being present after two to four weeks. The great point of interest is that this difference in the rate of growth affected equally both sarcomatous and gland-like portions. It might be explained in two ways: First, the sarcomatous tumor owes its existence to a transformation of a gland-like tumor. The common origin of both cells would explain their similar reaction as expressed in the variations of growth. Although a great similarity exists at certain places between the cells of the gland-like tumor and the interstitial cells, the sarcomatous tumor proper

and the gland-like tumor do not show any direct transitions into each other. The second possibility is the following: The gland-like tumor transmits something to the connective tissue which causes the latter to assume a sarcomatous growth. It is not necessary, as Ehrlich concluded from his observations, that connective tissue has to be transplanted through a number of generations before it can assume a sarcomatous growth. A stimulus can be transmitted to the connective tissue in the second generation. Moreover, ordinary epithelium or connective tissue after a series of transplantations assumes a markedly increased rate of growth. We have, therefore, to conclude that it is most likely that some agency is transmitted from the gland-like structure to the connective tissue, and that this factor causing the increased growth of the connective tissue is identical with the factor responsible for the growth of the gland-like tumor. The same agency is, according to this interpretation, responsible for the growth of both tumors. It is, moreover, likely that the connective tissue surrounding the gland-like tumor, and not the connective tissue which lies between the glandular structures, is the starting point of the sarcoma. It is, therefore, improbable that the transplanted stroma of the gland-like tumor itself assumes a sarcomatous growth.

A very striking difference between the tumors of the first and the second generations on the one side and of the third generation on the other side is the great uniformity in the histological structure of both the sarcomatous and gland-like tumors in the third generation and their polymorphous character in the first and second generations. In the second generation the gland-like tumors grew in two different ways, new alveoli being created through the formation of cell nests of at first apparently undifferentiated cells which gradually form central cavities or colloid material through transformations of the centrally situated cells. Secondly, we find that well-developed alveolar structures increase in size by mitotic cell division. In the third generation we find only the latter mode of growth to be present. There is, however, one feature in common between Ehrlich's series and the one reported by Loeb; in both cases the sarcomatous part gradually crowds out the gland-like structures, so that we may assume that if the tumor had been transplanted into further generations the gland-like structure would have gradually disappeared in time, leaving only a sarcomatous growth.

Some of the conclusions are necessarily merely of a tentative character; further experiments will be necessary to determine which of the possible explanations is in each the correct one. Many of the facts established by Loeb could be explained by the assumption that a micro-organism present in, and responsible for, the growth of the gland-like structures was transmitted to the connective tissue and caused it to proliferate secondarily. These observations suggest a similar origin for the sarcomatous tumors found in mixed tumors of the thyroid in man and in different species of animals; the gland-like tumor being in both instances the primary tumor and producing a secondary sarcomatous growth in the surrounding connective tissue.

THE BISMUTH SKIAGRAPH IN DETERMINING THE TOPOGRAPHY OF THE GASTRO-INTESTINAL TRACT.

The results recently announced by Warden (University of Pennsylvania Medical Bulletin, August, 1906) of his study of the value of bismuth and the skiagraph in outlining the shape and position of the stomach and intestines lead us to believe that this method will soon be recognized as the most accurate means of determining the topography of those organs. The X-Ray examination by means of the bismuth shadow is applicable to every portion of the alimentary tract below the pharynx. Examination shows that by this method the stomach and intestines can be studied more completely and more accurately than has heretofore been possible. In some cases skiagraphs have shown marked prolapse which repeated physical examinations failed to indicate. The difficulties encountered in inflation and illumination; namely, the confusion between the tympanitic note over the stomach and that over the colon; the tendency in distending a stomach with gas or air to push a distended colon before it, making the distinction between the two less marked; the fact that the undistended stomach is not in contact with the abdominal wall and when empty is contracted high up under the diaphragm so as to be almost inaccessible to physical examination, are not met with in examinations by skiagraphs.

The technique used in taking the pictures varies somewhat. The method of Warden is to administer bismuth subnitrate held in suspension in mucilage of acacia. This is either poured into the stomach through the stomach tube or swallowed by the patient. The bulk of the bismuth-acacia mixture varied from six to thirty-two ounces; the amount of bismuth varied from one to four ounces. Immediately after the bismuth has reached the stomach the pictures are taken, the patient being in the standing position, and the plate in contact with the anterior abdominal wall. The X-Rays penetrate from behind, the patient being directed to

hold his breath at the end of a full inspiration for an exposure of eight to fifteen seconds. In this manner the blurring by respiratory and peristaltic movements is eliminated. After the picture has been taken it is advisable to siphon the bismuth mixture out of the stomach. Hulst's method differs slightly from the one just mentioned. Hulst takes one skiagraph immediately after the bismuth enters the stomach; he takes a second skiagraph six hours later, allowing no food in the meantime; he takes a third skiagraph twelve to fourteen hours after the first one, as the best time for pictures of the colon. The first skiagraph shows the size, shape, and position of the stomach, the second shows the motility of the stomach, and the third shows the position, size, and shape of the colon.

For diagnostic purposes X-Ray pictures of the stomach and intestines excel any other method. To the surgeon skiagraphs of these organs are of the greatest value and operations upon the digestive tract for prolapse, etc., can be undertaken with far more confidence. The permanency of the record secured by skiagraphs and the accurate manner by which the position of the stomach and intestines can be ascertained before, during, and after the treatment add to the value of the method. Skiagraphs have proved of value in the diagnosis of stricture, dilatation, and sacculation of the œsophagus; of dilatation and prolapse of the stomach; of hour-glass stomach, and of carcinoma of the stomach; of stricture, dilatation, and tumors of the intestine; of prolapse of the colon and sigmoid flexure. In addition to the accuracy of the results obtained the simplicity of the technique, provided a good X-Ray apparatus is accessible, and the comparative comfort to the patient are to be mentioned; the inconvenience being no more than that caused by the passage of the stomach tube.

THE LEGISLATURE.

The recent legislature of North Carolina made a record for itself in the number of bills it passed. Among those in which the profession of our State has been interested are: The Bickett bill carrying an appropriation of half a million dollars for the better care of the insane in the State; and the bill to establish a State sanatorium for the treatment of tuberculosis. Not a few of the States have made similar provision for the betterment of methods toward eradicating the dread "white plague." The medical profession should feel grateful if nothing else had been accomplished than this one thing. Any step in the direction of providing for those who suffer from consumption ought to receive the hearty support of physicians, and we are glad to note that North Carolina is not behind her sisters in progress. It is easy to see the importance of this measure when we consider the thousands of victims within our borders and when we remember how great a proportion of deaths are due each year to tuberculosis. Doubtless it is fruitless to repeat facts which many already know, but when we stop to think that four hundred and eleven people die of consumption in the United States every day, —die of a preventable disease,—anything is encouraging which promises improvement in methods of treatment and prevention, and betterment in facilities for disseminating information concerning its prevention to the great mass of humanity. There are lessons relating to infection which need sadly to be learned by the public and the existence of a sanatorium for the care of those suffering from tuberculosis will be justified by the educative influence it has upon the community.

And because it has so generously provided for the care of the State's mental defectives the legislature has won and deserves the applause of the people. We have not been ignorant of the need of more ample provision for the insane in our midst. There is not a physician in North Carolina who has not seen the misery, fear and unhappiness powerfully visited upon families whose insane must be cared for at home. Our insane hospitals despite their constant enlargement have been woefully inadequate to the needs. In caring for, treating, protecting and trying to cure the mentally afflicted the State is conferring untold benefit upon thousands of sane citizens who are necessarily indirectly affected by every insane person for whom proper treatment is not provided. While it is to be regretted that four years must have passed before the benefit of this measure can be realized, yet it is with something very near akin to joy that the Journal notes the fact that it is to be realized even so soon. A bond issue would have made it possible of consummation in much less time, but our law makers saw fit to adopt other means of discharging this obligation.

GROCCO'S SIGN IN PLEURAL EFFUSIONS.

The powers of observation possessed by practitioners of a generation or more ago—or at least the skill in clinical diagnosis which tradition says was theirs—surrounded as it is now by the halo which remoteness lends, excites a degree of wonder and envy in the modern physician. There is no doubt that the old doctor was compelled to rely upon his powers to observe closely, since he did not have the instruments of precision, and the laboratory methods such

as we of today possess and which have doubtless, to a certain extent, made us less and less dependent upon the perceptions of the senses. It is therefore the more remarkable that a new physical sign, the result purely of clinical observation, has but recently been announced by its discoverer, Grocco, of Florence. Five years ago he described this sign, but it has so far received little attention in this country. More recently several journals have described the sign and its method of elicitation. The American Journal of Medical Sciences seems to have been the first to publish an article by Thayer and Fabyan on this subject. They were able to elicit the sign in thirty out of thirty-two cases. The sign, applicable only in cases of unilateral pleural effusions, consists of a paravertebral triangle of dullness on the side opposite the effusion. The base of the triangle corresponds to the lower margin of normal pulmonary resonance. The apex is usually about the level of dullness from fluid above. The vertical side of the triangle corresponds to the line of spinous processes of the vertebrae while the other side, or the hypoteneuse, is represented by a line drawn from the outer end of the base line to the apex. The method of eliciting the sign is comparatively simple. First the effusion is mapped out, then the lower border of pulmonary resonance on the sound side is ascertained by percussion. Percussion is then practiced from above downward directly over the spine until the point of relative dullness is reached—a point which will be found to correspond very closely with the beginning of relative dullness over the effusion. This point is marked. According to the method described percussion is then made "downward along lines parallel to the spine and from without inward along lines parallel to the lower limit of pulmonary resonance." Dullness over this area is only *relative*—not absolute. In addition, it is said auscultatory phenomena over this area are altered. There is suppression of the normal respiratory murmur. Distant tubular breathing, nasal voice sounds, and the "coin" sounds are also present. Upon change of position by the patient there are important changes in the area of relative dullness. If the patient lies on the affected side it lessens or even disappears, but it returns when he lies on the sound side or assumes the upright position. It is said that the sign may be elicited when as little as 250 cubic centimeters of fluid is present.

Investigations as to the cause of this phenomenon are so far incomplete. The explanation most generally accepted says that effusion of fluid into one pleural cavity pushes the pleura ahead of it, forcing it to the front of the spine and, to a greater or less extent, displacing the contents of the posterior mediastinum toward the opposite side, thus pushing away from the spine the pulmonary tissue which normally imparts to the long column a resonant percussion note. In other words the fluid lying in front of the vertebrae acts like a mute in suppressing the sonorous vibrations of the spine.

It is to be hoped that the notice given this sign by the medical press will stimulate the profession to investigate its value.

THE NECESSITY FOR A MORE UNIFORM NOMENCLATURE.

Among other praiseworthy innovations originating at Harvard University we note Dr. Rotch's attempt to adopt a more uniform nomenclature of diseases both for study and teaching. He has been making efforts in this direction for a number of years and we are glad to see that his labors are beginning to bear some fruit. As he says, in an address before the Johns Hopkins Medical Society, it matters little to the busy practitioner whether another practitioner calls a disease by the same name as he, and it is of little moment whether a number of different diseases met with are called by the same name. Many of the titles applied to diseases are meaningless and incorrect, "mere relics of past ignorance" which "clog the wheels of progress, in that they do not represent the great advances which have been made in the medical knowledge of the present day." Many of the names retained to designate diseases convey absolutely false ideas, and to continue their use is to give countenance to absolutely exploded theories. To go back to the truth of the matter the continued existence of these incorrect and meaningless terms are the fault of teachers and writers. The student pays his tuition and rightly expects his instructors to give him the correct names and classification of diseases. Once fixed in his mind it is no easy thing to build over again and re-arrange his materials. Authors, too, continue to employ old and meaningless terms, and the great mass of readers do not recognize the headings as "a delusion and a snare." Physicians would perhaps be slow to acknowledge that they treat in exactly the same manner a number of different diseases just because they were taught to classify them under one name. And yet this is not to be denied. Dr. Rotch calls attention to the difficulties encountered by the teacher when he attempts "to study and make use of the writings of others who from their experience are fully competent to throw light on a given subject, and yet whose investigations become doubtful and obscure be-

cause the uncertainty is always arising as to whether under the name of the disease they are describing they mean one or a number of diseases." However, it is the teacher who must bring about these important changes. It cannot be done suddenly. A generation or two might pass away before the end is accomplished. If the schools of the country would agree on an exact nomenclature or even a provisional classification which could be changed from time to time as new discoveries in etiology warrant, the desired end must inevitably be attained. Its adoption in the great teaching centers like New York, Chicago, Baltimore, Philadelphia and Boston must certainly result in the proper allignment of the smaller schools. A uniform classification would mean uniform teaching; a student passing from one school to another would not be handicapped by so unnecessary a thing as being unable to understand clearly the terms used by his new teachers. Moreover, such a system would remove one of the difficulties so often encountered by the candidate before the State Board of Medical Examiners before whom are gathered a heterogenous lot of men from schools which have taught as many different classifications as there are schools. Dr. Rotch believes "if only a beginning could be made by re-classifying one or two subjects where it was most needed much good would come of it, for the teachers would then understand what great practical aid would result from an advanced classification for the clinical work in all diseases."

TYPANOSOMIASIS.

Not a little interest has been aroused in the medical world by the investigations of the relationship existing between the so-called "sleeping sickness" and typanosomiasis. In certain parts of the globe—particularly in portions of Africa—this disease is extremely prevalent, and the various commissions authorized by European governments have accomplished much in their work toward clearing up the problem.

The trypanosoma is a flagellated hemotozoon which has been found in the blood of man along the Gambia River, in Algiers, hence the name *Trypanosoma Gambiense* which has by common consent come to be applied to the parasite. Not until 1902-03 was the occurrence of pure infections of this parasite in the blood of man demonstrated. Dutton, Forde, Manson and Le Moal have been the pioneers in the study of this interesting condition. Infection of the blood of domestic animals by various forms of trypanosomes has long been recognized and called by various names as Surra, Tsetse Fly Disease, Nagana, Mal de Caderas, &c. It is estimated by Musgrave and Williams that the loss by death of horses alone in the Philippine Islands from trypanosoma infection is $2,000,000 a year.

The trypanosoma hominis according to Dutton is 18 to 25 microns in length and 2 to 2.8 microns in width. The body is blunt and conical at its posterior end, while the anterior end is pointed and is provided with a long flagellum—a continuation of an undulating membrane attached for nearly the whole length of one side of the body. According to Ewing the central portion of the body contains an oval nucleus consisting of chromatin grains, while in the posterior end lies a centrosome or micro-nucleus giving origin to the flagellum mentioned above. The trypanosoma is found free in the plasma, never within the red cells. It is believed that the leucocytes may ingest and destroy them. Francis, Kempner and Rabinowitsch believe that multiplication takes place by transverse and longitudinal division and by segmentation. Boston observes in the peripheral blood large, roundish bodies, 14 to 16 microns in diameter, showing one or more vacuoles which are regarded as being a developmental stage of the parasite.

Tryponosomes inhabit the blood. They are found in the cerebro-spinal fluid and in some cases they have been observed in hydrocele fluid. Ewing says the number of parasites seen in the blood is scanty, not more than three to eight being found under a cover slip. To ordinary methods of examination the parasite may be absent from the peripheral blood for varying periods and the frequency with which it is obviously present in the peripheral blood bears no relation to the severity of the symptoms. A rise of temperature is not necessarily associated with an increase of parasites in the blood.

In man the symptoms of trypanosomiasis are intermittent fever, chronicity in course, edema of eyelids and ankles, emaciation and weakness, langour, and perhaps a drowsy, somnolent state. As to this last symptom Christy, Dutton and Todd report that in their investigations they have not met with a single case of "Congo sickness" in which sleep has had a prominent place among the clinical symptoms. They find that the few cases in which drowsiness is a feature are to be accounted for by the presence of the parasites in the cerebro-spinal fluid, which fact likewise accounts for the occurrence of head symptoms, such as mania, epileptic attacks, flexor contractions and convulsive seizures. The disease is known to have a long latent period of perhaps years. It is known that natives have been infected with trypanosomes for a year

or longer and still there was no definite signs of disease.

Sir Patrick Manson remarks: "If Colonel Bruce's contention is proved, the fact that *Trypanosoma Gambiense* is the cause of sleeping sickness is a matter of the highest importance; but if, on the other hand, it be not fully proved, to accept it as such, and to found on the supposition expensive prophylactic measures, would be a serious false move. Recent work seems to indicate that the trypanosoma is an element in the causation, but that the determinating cause of the pathogenic condition causing the symptoms of sleeping sickness is bacterial."

PROTEIN METABOLISM.

The St. Louis Medical Review gives an excellent resume of Folin's Theory of Protein Metabolism. So good indeed is it that we quote herein at length from that journal. Physiology, and especially the subject of metabolism, offers exhaustless fields for the investigator and any contribution of such value as Folin's deserves mention. The Review says:

"The theories of protein metabolism heretofore advanced have been two: First, that of Voit, who believed that the proteid of the absorbed food passed to the different tissues and was katabolized by the cells without becoming an integral part of the protoplasm. Pflueger, on the other hand, believed that all the proteid was first transformed into living matter.

Folin affirms, as the result of his experiments and analyses, that both forms of metabolism occur. He thinks there is a constant "*tissue* metabolism" which he calls "endogenous metabolism." This is indispensable to life. In fact these "metabolic processes probably constitute an essential part of the activity which distinguishes living cells from dead ones." In starving animals this is practically the only type of protein metabolism. The waste products represent the decomposition of living protoplasm. This constant, endogenous metabolism—the real, absolutely essential need of proteid food—is represented in the urine by kreatinin and neutral sulphur, to a less extent by uric acid and ethereal sulphates, all these substances, and especially the kreatinin and neutral sulphur, being practically constant in the urine under a great variety of changes in proteid food. As an example may be mentioned analyses of the same person's urine on two days about a week apart: First day; volume, 1170 c.c.; total N, 16.8 grammes; kreatinin nitrogen, .58 gramme. Second day; volume, 385 c.c.; total N, 3.60 grammes; kreatinin nitrogen, .60 gramme.

Besides this essential, or endogenous, metabolism there is, according to Folin, an "exogenous metabolism"—a metabolism of proteid which does not become living at any time. This is represented in the urine by urea and inorganic sulphates. This metabolism is extremely variable, being high when much proteid is eaten and very low on a minimum diet of proteid.

So far this exogenous metabolism seems a new name for the theory of Voit. But here comes in the essentially new idea of Folin: *The proteid metabolized exogenously is not used for the sake of its nitrogen at all*, but rather for its carbon and hydrogen. The nitrogen is split off hydrolytically and eliminated as urea, being from the very start a waste product. The nitrogen of the exogenous proteid is split off in the intestine and liver.

Thus is accounted for the fact that the nitrogen of the excess proteid of a meal appears in the urine in a very short time. Also the fact that nitrogenous equilibrium can be established on an amount of proteid far below the standard diet, fat and carbohydrate taking the place of the exogenous proteid. Also the fact that almost no urea can be detected in the muscles, although these must be the seat of the greater part of the essential (endogenous) proteid metabolism. Also the fact that carbohydrates and fats (non-nitrogenous bodies) may be formed in the organism from proteids.

As to whether an excess of proteid above that needed for endogenous, or protoplasmic, metabolism is injurious, Folin does not take a firm stand, although inclining to the idea that it may be. For example, the ordinarily accepted relation between uric acid and gout may be cited as probable evidence."

Paton (Journal of Physiol.) presents evidence which he thinks speaks against Folin's theory. His experiments made on dogs show that in the fasting animals and in the same animals fed on protein poor diets, like oat meal and milk, a very large percentage (78-83 per cent.) of the nitrogen passed as urea. On a heavy flesh diet the percentage rose only to 89. He believes that these results speak against the view of the separate and distinct character of the end-products of endogenous and exogenous types of proteid metabolism. He shows that kreatinin does not remain constant in the urine of the dog. His results as regards sulphur in the dog's urine is also quite different from Folin's as regards human urine. Paton's experiments likewise show a distinct rise of urea metabolism following muscular work. But he does not state the amount of work done. He believes Folin's results "may be explained by variations in the activity of the hepatic metabolism."

THE "MEDICAL ERA."

We are pleased to note the union of two such strong and useful publications as the Medical Era and the Medical Mirror. With the April issue the first number of the consolidated journals appears, being continued under the name of the Medical Era. The Medical Mirror, founded twenty years ago by Dr. Love, widely known for his geniality and bright, pleasant personality, has been successful and prosperous. Its absorption by the Era must materially strengthen the latter which is already widely read and esteemed by a high class clientele. The Drs. Martin, whom the Journal holds in genuine regard, have our sincerest good wishes. Their past success assures them even greater achievements with this enlarged sphere which the consolidation of the two journals gives.

Review of Southern Medical Literature

The Medical Recorder, February, 1907.

Puerperal Eclampsia.—Dr. J. M. Bodenheimer believes that in fatal cases the temperature always rises above 104 degrees F. Indeed high temperature is a bad prognostic sign as a rule in eclampsia. One of the author's cases was a woman who recovered after a temperature of 108 degrees F. per rectum had been reached. She was a young healthy matron, a primipara, admitted to the maternity service in August, 1905, with a history of having had several convulsive seizures. She was unconscious when seen. Under chloroform anaesthesia she was delivered with forceps. Only one convulsion occurred after delivery. Her temperature which had been 103 degrees F. on admission continued high throughout the remainder of the day. The next morning, about 24 hours after the accouchment, her temperature registered 108 degrees F. per rectum. A cold tub bath of forty minutes duration reduced the temperature two degrees. The hyperpyrexia was kept under control after this by means of hydrotherapy. The patient made a good recovery, being allowed to get up on the fourteenth day. The child also survived.

Some writers maintain that puerperal eclampsia is a preventable disease. In spite of the extreme prophylactic care of pregnant women in the hospital three women who had been under treatment some time before the accouchment were attacked. We are forced to the conclusions of Williams that while proper care of the women in the pregnant state perhaps wards off some attacks it is not absolutely proof against the occurrence of the condition. Almost every form of treatment that has ever been recommended has been tried at the Charity Hospital. It may be interesting to note that over twenty drugs had at one time or another claimed for them specific action in this disease. Remedials which have at one time been given with success, at other times have apparently exerted little or no influence upon the progressive gravity of the conditions As a routine practice the woman, if she has not been delivered, is delivered immediately under chloroform anaesthesia. Chloroform bromides, chloral hydrate, and morphine are the drugs used to control convulsions. Veratrum viride was at one time thought very highly of here, even being almost regarded as a specific. Digitalis is the chief cardiac stimulant employed. Champhor strophanthus (1-100) solution of adrenalin chloride have also been employed. Saline solution by enema hypodermoclysis and venus infusion has been used in the last few years. Powerful diuretics of almost every kind have been administered. Sweating is still employed, though the use of pilocarpine has been discarded. Hydrotherapy controls the temperature. But until the actual cause of eclampsia is known our treatment shall always be symptomatic.

Richmond Journal of Practice, Jan. 1907.

Medical Reminiscences of Richmond During the Past Forty Years.—Dr. J. N. Upshur in recalling the various distinguished men of Richmond gives the following account of Dr. Hunter McGuire: Dr. Hunter McGuire, the most distinguished member of the profession of his day and generation in the South, came to Richmond immediately succeeding the war as the Professor of Surgery in the Medical College of Virginia. As a teacher he was practical, clear and thorough. He was in the prime of early manhood when he came to Richmond. He had the prestige of having been Stonewall Jackson's medical director. At the outbreak of the war he was in Philadelphia as quizmaster, and promptly came South bringing to the Medical College of Virginia five hundred Southern students. Ambitious, intelligent, aggressive, indefatigable, original, it is not to be wondered that he attained a wide reputation, both State and National. But the qualities which in no small degree contributed to his success were his wonderful intuitive knowledge of human nature and the magnetism of his personality. He enlisted the confidence of his patients as he entered the sick-room, which subsequently developed into a devotion and loyalty rarely equalled and never excelled in the case of any other man. Of large and tender heart the readiness with which he gave his services was only commensurate with his

opportunities. The affection in which he was held by his patients and friends is attested by a bronze statue which adorns the square of the State Capitol. Dr. McGuire enjoyed all the honors of the profession to which he was eligible. He was the founder of the University College of Medicine in this city, which stands today as an enduring monument to his genius.

The Southern Practitioner, Feb. 1907.

Gastro-enterostomy for Duodenal Ulcer—Dr. W. D. Haggard after reporting the case and describing the technique of this operation says: There are many cases of chronic indigestion that are due to ulcers of the stomach and duodenum that are not recognized but simply treated for indigestion and dyspepsia. The results of course are very disappointing as evidenced in the long story of ineffectual cure in this instance. A proper understanding of the natural history of ulcer that causes indigestion not of nervous origin would enable us to relieve a large number of cases of otherwise hopeless suffering. The operation must be applied to cases which have undergone cicatrization of the ulcer and preferably in cases where there is an obstruction to the pylorus. These cases furnish most certain and positive results. The lesson to be learned from this case is to be suspicious of ulcer in long-standing cases of painful digestion. The corroborative information furnished by a test meal and the stomach tube is very simply obtained, consisting only of distending the stomach with air to determine whether or not it is dilated, and withdrawal of the test breakfast of tea and toast administered an hour before will enable you to determine whether or not Hcl is in excess. There is no difficulty in diagnosing typical cases; but in cases without obstruction and especially if the ulcer is in the duodenum and has a subacute perforation with adhesions it is difficult to disseminate the lesions from gall bladder disease. Fortunately this is not essential nor is it possible always to say which trouble exists; but if the symptoms are unrelieved by ordinary means and one can narrow the disease down to stomach or duodenum on the one hand and gall bladder on the other operation is justified, because the condition is purely surgical and incision is the first step not only in the determination of pathology but a necessary one in its cure. A neurasthenic may have stomach symptoms simulating ulcer, but unless there is absolute proof of mechanical interference or bleeding operation is absolutely contraindicated.

Maryland Medical Journal, Feb. 1907.

Some Observations on the Significance of the so-called "Occult Hemorrhages" in the Diagnosis of Ulcer and Carcinoma of the Stomach.—Drs. Friedenwald and Rosenthal desire to call attention to the significance of two very simple tests, the importance of which was first pointed out a few years ago by Boas as a means of detecting minute quantities of blood in the gastric contents and feces. This investigator showed that by the aid of the well known Weber test as well as by Klunge's alum test it is a simple matter to detect a minute quantity of blood having its origin in the stomach too insignificant to be seen by the naked eye and yet which by its continued persistence may prove a serious menace to life. Thirty-five cases of ulcer of the stomach were examined as to the presence of occult blood in the stools. This condition was found in 26-74 per cent. It was not noted, however, at every examination; most frequently, however, before the patient had been placed under treatment and when the pain and nausea were extreme. After the patient had been placed upon the ulcer-cure (rest in bed and diet mainly of milk) for a period of days the occult bleeding disappeared. The continuance of occult bleeding after a faithful trial of the ulcer cure has been undertaken is indicative of the fact that a healing of the ulcer is impossible and surgical interference must be considered. We have found occult bleeding a most valuable aid in diagnosis of this disease, especially in the cases in which the symptoms are not decisive and in which the diagnosis varied between gastralgia and ulcer. In every instance in which the ulcer treatment was undertaken improvement in the patient's condition indicated the correctness of the diagnosis and the value of this sign. Occult bleeding has often as much significance as pronounced hemorrhage and will frequently indicate the presence of an ulcer long before visible hemorrhage is present. The presence of occult blood can be utilized too in testing the effect of various forms of treatment in ulcer of the stomach. During the ulcer rest cure the occult bleeding rapidly disappears.

Virginia Medical Semi-Monthly, Feb. 8th, 1907.

Diagnosis of Certain Affections of the Liver and Biliary Apparatus.—Dr. G. P. LaRoque concludes this article by saying that he wishes to emphasize the importance of an appreciation of the great frequency of bile tract infection. It is now generally recognized that this is the real underlying cause of gall stones as well as of the signs

of cholelithiasis and its indications for treatment. Gall stones in a healthy bile tract are frequently "latent" save for otherwise unaccountable gastric catarrh of moderate or mild degree. When, however, to these and to infection bile strangulation, traumatism, and other forces calculated to act as local devitalizing agents are added the signs of bile tract inflammation betoken trouble. It is the infection in the great majority of cases that causes symptoms. So also with many cases of malignant disease and new growths of the bile tract and liver. Every case sooner or later becomes complicated by concomitant inflammation of the biliary apparatus which generally terminates life. Even mild infections are damaging in their effects and when prolonged or supplemented by local or general feeble resistance ultimately productive of fatal lesions. Most cases of hepatic cirrhosis are in reality dependent on infection acting upon a liver non-resistant from alcoholic abuse and many cases of this affection in its hypertrophic stage have been cured by prolonged artificial drainage of the gall bladder and hepatic ducts. It has long been known that malignant disease of the liver was in at least one-third of the cases secondary to carcinoma of the intestinal tract and that the method of extension was practically always through the portal circulation. So that a diagnosis of carcinoma of the liver implies always a careful search for a primary lesion in the alimentary tract. No case of malignant disease of the stomach or intestinal canal can be completely studied until the liver has been most critically examined for signs of mestastasis. Every practitioner recognizes now the great frequency of bile tract infection following typhoid fever. Typhoid bacilli and other organisms are constantly eliminated by the bile and while in many cases their mere presence causes no damage, yet it is easy for a gall bladder or duct enfeebled in resistance power to become the seat of serious inflammation. It is on this account that every case of typhoid fever is entitled to a careful examination of these structures at each visit. Many recrudescences of fever are due to biliary tract inflammation; many cases of pain in this region and all of icterus, however slight, are caused by this complication. True cases of relapse during the course of typhoid fever are much more rare than is commonly believed, and many competent diagnosticians feel chagrined when bound to make a diagnosis of true tyyhoid fever relapse.

Memphis Medical Monthly, Feb., 1907.

Treatment of Pelvic Infections in Women.—Dr. W. W. Taylor believes the first essential in the treatment of an acute infection of the fallopian tubes, ovaries and pelvic peritoneum is absolute rest in bed. Mild purgation should be kept up, preferably with salines. Ice externally applied in bags and kept up more or less continuously is of importance. Opium if given at all should be for severe pain only. By these simple measures a large majority of cases will be cured. Complete resolution may occur by absorption. There is not much danger to life in acute cases, as the disease is usually quarantined by adhesions an operation is not often demanded in the acute stage. Hot vaginal douches in chronic cases with the patient on her back and given for at least fifteen minutes may be of some benefit, or at least comfort. Local treatment in the way of painting the vaginal wall with iodine and the application of ichthyol and boroglyceride are of doubtful service in having any effect upon a pelvic exudate. Opium should not be given to chronic cases. The first factors in deciding for or against operative treatment are facilities present and the experience of the operator. The removal of an old and universally adherent pus tube is the most difficult operation in pelvic surgery and no physician should attempt it until he has officiated as assistant to an experienced surgeon and gynecologist or has had long and especial training in this branch of surgery.

As to the cases requiring operation the author classifies them as follows:

1. All cases that result in well defined abscess.

2. Those cases that continually get worse in spite of patient palliative measures.

3. All chronic cases that have repeated attacks of pelvic peritonitis.

4. All cases with a persistent tumor in the pelvis, with repeated acute symptoms, more or less continuous pelvic distress, and which affect the general health.

5. Cases that have resulted in fixed displacement of the uterus and ovaries.

It is seldom necessary to remove the uterus along with the tubes and ovaries, and enough ovarian tissue can often be left to preserve menstruation. While more conservatism is practiced at this time than a few years ago there are still too many ovaries entirely removed in these days of operative furor.

New Orleans Medical and Surgical Journal, February, 1907.

Septic Contraindications of General Anaesthesia.—Dr. J. D. Bloom reminds us that acetonuria has been shown to exist from chloroform administration in septic

conditions, and is very pertinent by mere name to designate a condition that must confront every general surgeon in a need to explain the diffuse and annihilating depressive sepsis that is awakened in a chloroform administration where a septic infection with an effect that is unmistakable exists.

Heintz claims that a single prolonged inhalation of chloroform is able to give rise to fatal results in twenty-four hours by the pathological changes produced. Of course he mentions idiosyncrasy, but he claims the organic changes to be due to the direct toxic action of the chloroform. The cause of death in cases having undergone general anaesthesia, as Mr Stiles mentions, have been attributed to fat embolism, to sepsis or delayed chloroform poisoning. Of course it is remembered that it is sometimes impossible to obtain postmortem bacteriological evidence of a general septicemia, and the bacteriological examination of the blood during life is essential to confirm the supposition. It is possible that the pathology as has been found after death by chloroform may exist independent of its administration. The truth must remain, however, that too it is a pathology of chloroform administration. Pathologists must determine for us the true nature of the vulnerability that chloroform sickness is typical of its administration under conditions that clinical observations show harmful as in conditions septic. The statistics of Mr Stiles additionally show that the symptoms are most severe and most frequent in patients suffering from any form of infective disease, whether acute or chronic. It was found that ninety per cent. of the cases of serious disturbance were operated on for some infective disease. Mr Stiles admits that it is hardly justifiable to attribute the fatal results to hepatic insufficiency.

True it is that idiosyncrasy may play an important part in many fatalities, but this could not explain the delayed death that he concludes must be explained by some intoxication still obscure. He aptly compares the poisoning to others met with in auto-intoxications for example. Diabetic coma but this is confused by the production of a like condition by bacterial toxins.

The Southern Clinic, February, 1907.

Electrification as an Equalizer.—Dr. H. C. Bennett says that the catalytic action or the effect on the vaso-motor nervous system and therefore through it upon the nutrition of the tissues is the most important action or effect derived from electrification as applied to therapeutics. This action or effect is two-fold, depending on which pole is employed as the active one. The different poles have each an entirely different effect. The positive pole contracts the capillaries, thus reducing congestion, while the negative pole has the exactly opposite effect, dilating the capillaries and increasing congestion. The effect on the nerves is similarly diametrically opposed the positive pole or anode, acting as a sedative and reducing pain, while the negative pole or cathode will stimulate and increase pain. These effects follow the application with but slight modification no matter which modality is employed, whether it be galvanic, faradic, or frauklinic, or more correctly speaking the constant interrupted or alternated static. All electrification has a tendency to find its level or to establish an equilibrium, and this result will follow whether the derangement be above or below the normal level. Thus an inflammatory condition will be relieved by an equalization of the circulation of the part, and on the other hand a cold anemic condition will be relieved by the same process of equalization of circulation, letting more blood into the part and warming it. It is through this process that the conditions of atrophy and hypertrophy are both remedied by the same agent, and although to the uninitiated there is an apparent contraindication, yet when we understand polar effects the seeming paradox is explained. From this we at once see the great importance and indeed the necessity of a careful analysis of the existing conditions to be changed and why we should fully understand the physics, chemism, and physiologic action of the agent before we may attempt to apply it as a remedy in therapeutics. It is on account of this lack of preparatory knowledge on the part of the doctor that so many miserable failures follow the ignorant use of this remedy, and why so many will condemn it wrongly. It is an axiom in medicine that anything which is a power for good when rightly used is just as much a power for harm when wrongly used in direct proportion to its potential, and this applies very forcibly to electrification in therapeutics. A well read doctor, one successful and posted in his line, will fail to relieve some certain condition, although he may try all the usual treatments, and he will hear or read of a certain man who achieved splendid results in just this class of cases by means of electric treatment. No details are given and it sounds easy. Of course he also wants to succeed, so he gets a battery or machine and reads the directions which accompany it, and he installs the plant and is ready for business forthwith.

Texas Medical Journal, February, 1907.

Acute Pelvic Infections.—Dr. J. C. Taylor said in part: It is but a few years since a woman's tubes and ovaries were sacrificed by an operator lest a future laporotomy should be required. Actuated by a sense of thoroughness he deprived women of the function of menstruation which is interwoven with the mental as well as their physical life. It is better to conserve these organs, even if elaborate and hazardous procedures must be adopted to accomplish this end as well as to cure the patient. Conservative operations sometimes may fail; but even if they do radical procedures must be adopted later without added risk to the patient. On the other hand it is impossible to restore organs removed by radical work. For many years it has been customary in most large hospitals to treat patients suffering from extension of gonorrhoeal inflammation to the tubes by hot antiseptic douches or perhaps by tampons and an ice-bag externally over the lower abdominal region. When the acuteness of the attack had somewhat subsided the tubes as well as the ovaries were frequently swollen and engorged to such an extent as to be designated as tumors and removal was advised; whereas without apparent mutilation the inflammation might have been checked in the beginning and the woman allowed to keep her organs, though somewhat damaged. The conservative work to be attempted is mainly that of evacuating the free pus in the culdesac when the operator is convinced by the bulging of the wall of the posterior fornix that purulent exudate is present in abundance. The gonococci in an active state after they have gained entrance into the uterine cavity cause a destruction of the superficial cells, work their way into the deeper layers, and are the cause of an immense amount of purulent exudate, destruction and infiltration of the outer layers and edema of the deeper structures. Unfortunately after gonorrhoea has once become well established within the uterus it invades by continuity of tissue the Fallopian tubes. The inner surface of the uterus may become such an active seat of inflammation in its deeper layers that the walls of the smaller vessels become involved, as do the surrounding lymphatics, and the normal structure is almost entirely destroyed. The walls of the uterine cavity thus become suppurating surfaces which later become sclerotic and this is followed by a shrinking of the organs. This is frequently the case in mixed infections.

Southern Medicine and Surgery, February, 1907.

Medical Treatment of Diseases of the Bile Tract.—Dr. M. P. Rucker recommends that in catarrhal jaundice our efforts are to be directed toward alleviating the catarrhal condition. A small dose of calomel may be given if gastric catarrh is present. The bowels are to be kept open afterwards by means of salines; but the point is not be purged. Vitchy is the favorite mineral water used in these cases. The diet should be light and free from fats and oils. With a view of exciting peristalsis in the gall bladder so as to expell the plug and mucous colonic irrigation with cold water may be tried. Warm baths and a 1 per cent. solution of carbolic acid in glycerine and water are useful. When the patients are well to do it is usual to send them off to some spring where the water is mildly laxative and where they can escape business cares. The indications for treatment in passive congestion are to restore the balance in the circulation and to deplete the portal vessels. The former requires treatment of the underlying condition, be it heart disease or some lung trouble. The latter indication is met by purgatives, such as salts and blue mass. The Anglo-Indian physicians recommend aspirating 18-20 ounces of blood directly from the liver. In syphilitic disease of the liver one should begin the usual treatment for syphilis whenever there is any suspicion of the nature of the disease without losing valuable time in waiting for a positive diagnosis. We now come to the class of diseases in which the most that we can do is to smooth the patient's pathway. It is to these diseases especially that we medical men would like to direct the attention of the surgeon. The treatment of acute yellow atrophy is entirely symptomatic. The headache should be relieved by ice bags and acetonilid rather than morphine. Nothing can be done to influence the course of the disease. The treatment of amyloid and fatty diseases should be directed to the underlying condition. Hypertrophic cirrhosis is to be treated symptomatically. Full doses of sodium phosphate may be given. The surgical treatment of hypertrophic cirrhosis is very promising. A considerable percentage of the cases are greatly relieved.

The Atlanta Journal Record of Medicine, February, 1907.

A Plea for Earlier and more Careful Abdominal Diagnosis.—Dr. W. P. Nicolson concludes this article by saying that his plea is only for a more careful examination of patients. Let us go to the bottom of things, remembering that it is no more

of an affront to a patient to examine the abdomen than to explore the chest. Under the best of circumstances the abdomen is to a certain extent a closed book and he who deals with its hidden mysteries has many sorrows and disappointments in store for him. None of us can make a diagnosis by inspiration, but we may do so by the cultivation and application of our senses. Do not fall into the fatal mistake of losing the golden chance of reaching a conclusion early instead of being forced to it to surgery to classify the case as surgical when moribund and medical when it is not, but rather recognize its character early and be prepared to call assistance before it is too late. Rather be like the mariner who in the color of the sky and the rumble of the distant thunder recognizes and prepares for the approaching storm than like him who in the blackening clouds sees no harm and reefs his sails only when a gale in all its fury has burst above his head. Let us examine our patients more, and not like the Chinese doctor feel the pulse and examine the patient only when he is in articulo mortis.

Virginia Medical Semi Monthly, Feb. 22, 1907.

Flat Foot.—Dr. W. P. Matthews gives as the principles of treatment of this condition removal of the cause, proper support and development of weakened tissues and muscles to withstand the strain in the normal position. We all suggest arch supporters to be bought from the stores, and think we have done our full duty; but not so, and for this reason the author submits this paper. Every case must be treated on its merits, and the deformity must have been overcome and functional activity with the proper amount of motion in all the joints re-established before a steel support can be given. If the distortion is rigid or fixed this must be corrected by mechanical or operative measures. The glass plate in a table with the mirror underneath is a most valuable help in examining and determining the exact nature of the condition present. The foot must be even over corrected for awhile and held for some time—3 or 6 weeks perhaps—and then a support given. In making a steel supporter a plaster cast of the foot is absolutely necessary for the support-maker to have, and on that the size, shape, and extent of the inner and outer flanges must be marked for his guidance. Slight raising of the inner border of the sole and heel of the properly made shoe (one that does not compress or crowd the toes or fore-foot even in motion) will be found helpful. In some cases support to the sustentaculum tali is all that is necessary; others require the scaphoid cunieform and proximal end of the first metatarsal bone to be supported below or even on the inner side of the foot. Inward rotation of the oscalcis must be checked. Counter-pressure on the external edge may or may not be necessary, but usually is in well marked cases. The plate usually extends from a point just in front of the weight-bearing surface of the heel to a point just behind the sesamoid bones of the great toe about the width of the foot. Rigid feet require a longer and more extensive plate than flexible one. The plate must fit accurately and not produce pain or discomfort, but should be a true support or prop or crutch to the part or parts needing it, and should be discarded by degrees just as soon as the irritability has disappeared and the strength has returned.

Book Notices.

Text-Book of Psychiatry. A Psychological Study of Insanity for Practitioners and Students. By Dr. E. Mendel, A. O. Professor in the University of Berlin. Authorized Translation. Edited and enlarged by William C. Krauss, M. D., Buffalo, N. Y., President Board of Managers Buffalo State Hospital for Insane; Medical Superintendent Providence Retreat for Insane; Neurologist to Buffalo General, Erie County, German, Emergency Hospitals, etc.; Member of the American Neurological Association. 311 Pages. Crown Octavo. Extra Cloth. $2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The fault of many works on this subject has been their comprehensiveness. Professor Mendel in this small volume supplies a very positive need. The author has for many years been in the front rank of German scientists and his name stamps the book as excellent. A special feature is the systematized arrangement and classification especially of the divisions of the psychoses.

Anaesthetics and Their Administration. A Text-book for Medical and Dental Practitioners and Students. By Frederic W. Hewitt, M. V. O., M. A., M. D., Cantab. Third Edition, with Illustrations. 627 pages. London: Macmillan & Co., Limited. New York: The Macmillan Co. 1907.

The fact that Dr. Hewitt's book has reached its third edition gives proof that it is a work of more than ordinary value. In this edition he has added many new features and has elaborated much of the material

which appeared in previous editions. As an exhaustive treatise of all phases of the administration of anaesthetics there is no superior work in the English language. The book is a valuable addition to any physicians library.

Self-Propelled Vehicles. A practical treatise on all forms of automobiles. By James E. Homans, A. M. Fifth Revised Edition, entirely rewritten. New York: Theo. Audel & Co., 63 Fifth Avenue. 1907. Price, $2.00.

The motor vehicle is a singularly complex machine. Its construction and operation involve the consideration of an extensive range of facts in widely separated departments of mechanical knowledge. For those who wish to know something or all about automobiles—whether owner, operator or repairer—this book of 598 pages is a very excellent work. This edition is enlarged and enriched by many practical illustrations with full explanations of all accessory parts. The general make-up of the book is not surpassed. As an educational treatise this work is admirably suited because so many and varied are the mechanical subjects fully and completely encompassed within its pages.

A Text-Book of the Practice of Medicine. For Students and Practitioners. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Royal Academy of Medicine in Belgium and of the Medical Society of London. Author of A Text-Book of Practical Therapeutics; A Text-Book of Practical Diagnosis, etc. In one very handsome octavo volume of 1120 pages, with 131 engravings and 11 full-page plates in colors and monochrome. Second edition, revised and enlarged. Cloth, $5.00, net; leather, $6.00, net; half morocco, $6.50, net. Lea Brothers & Co., Philadelphia and New York, 1907.

One of the most uncommon and highly valuable mental faculties is judgment of relative importance, an ability to conceive ideas distinctly enough to measure them, and to picture them in their proper perspective. Such a faculty collects, arranges, sorts, drops what is unimportant, and seizes what is essential. Clear vision is clear thought, which finds its expression in clear language. Such qualities embodied in a book account for keen public appreciation, and this is the explanation of the fact that two very large printings and now a thoroughly revised edition of Hare's Practice have been demanded in less than two years. The author has written for medical students of all ages. He knows the needs of the undergraduate and the best mode of presenting a subject to his mind by reason of the fact that he has been teaching clinical medicine and therapeutics for nearly a quarter of a century, and the same length of active hospital and private practice gives the weight of experience which attracts the physician in need of counsel. Well-proportioned consideration is given to the theory and principles of medicine as underlying, explaining and leading up to the main objective point, namely, the practical application of the knowledge. Accordingly, particular pains have been taken to present methods of treatment clearly, and in such a way that they may be put directly into practice. Such have been the characteristics of the work from its original issue. In this new edition every line has been revised, anything already rendered obsolete by the rapid march of medicine has been eliminated, and all trustworthy advances have been incorporated, so that the volume, as it stands, is representative of its subject to date. Of its authority and resourcefulness, nothing need be said.

Biographic Clinics. Vols. IV and V. Essays concerning the influence of visual function, pathologic and physiologic, upon the health of patients. By Geo. M. Gould, M. D. Philadelphia: P. Blackiston's Sons & Co. 1012 Walnut Street. 1906.

Dr. Gould is doubtless best known as the author of his valuable series of medical dictionaries. One of the most learned and erudite members of the medical profession in the country, he is no stranger in other fields. He has a considerable body of work of interest to general readers. His Biographic Clinics, embracing clinical studies of the writings of various people with reference to a peculiar theory, viz., the influence of the visual function on health, opens up a new phase of biography. Vol. IV includes studies of the authors, Balzac, Tchaikovsky, Flaubert, Lafcadio Hearn and Berlioz.

Vol. V continues the series with a collection of highly interesting papers on the subject of eye strain. These articles have appeared elsewhere, but their excellence is all the more apparent in the single volume.

Human Blood Vessels. A study of the human blood vessels in health and disease. By Arthur V. Meigs, M. D., Physician to the Pennsylvania Hospital. Illustrated. Philadelphia and London: J. B. Lippincott Company. Price, $5.00.

Dr. Meigs' work on the anatomy and pathology of the human blood vessels con-

stitutes a most valuable contribution to scientific literature. Hitherto no work devoted exclusively to this subject has appeared. It has been impossible to find exact descriptions of the gross and microscopical appearances of the blood vessels in text-books on Anatomy and Histology. Dr. Weigs has supplied the need in this handsome volume of 136 pages. It contains many very fine illustrative plates and cuts —actual pictures drawn and reproduced in fine detail instead of diagrams. As a specimen of the book makers art it is a credit to the publishers.

Life in Ancient Athens. The Social and Public Life of a Classical Athenian from Day to Day. By T. G. Tucker. $1.25, net.

There are many books dealing with Greek life, or with phases of Greek life, in general. None, however, like this work of Professor Tucker's, treat solely of an interesting and important period of Athens alone. It is intended for students and for the general reader. Stripped of relatively unimportant detail, the subject is nevertheless presented in a most attractive manner.

The Tariff and the Trusts. By Franklin Pierce, of the New York Bar. $1.50, net. New York: The Macmillan Company. London: Macmillan & Co., Ltd. 1907.

This treatise shows the prevailing condition of the tariff and trusts, tells how the tariff system reached its present form, and analyzes the effects of the Dingley tariff upon the customer. It discusses in simple form the flagrant wrongs of the tariff and seeks to institute a movement in the direction of popular instruction which should be constantly going on instead of trusting to the knowledge people gain during the progress of a Presidential campaign. The book gives in its 386 pages a wide survey of the tariffs of many countries and of their past and present conditions.

Costume: Fanciful, Historical, and Theatrical. Compiled by Mrs. Aria. Illustrated by Percy Anderson. London: Macmillan & Co., Ltd. New York: The Macmillan Company. 1906.

Mrs. Aria's book is unique. It gives us a most interesting dissertation on dress, beginning in classic times and embracing that of foreign and British peasants, Oriental dress, fancy dress, dancing dress and theatrical dress. The publishers deserve credit for the excellent example of the book makers skill as shown in the general make-up of the volume.

Recollections of Oscar Wilde. By Ernest La Jeunnesse, Andre Gide and Franz Blei. Translation and introduction by Percival Pollard. John W. Luce & Co., Publishers. Boston, Mass., and London. 1906.

The recollections are written by one Frenchman and two Germans as they knew Wilde in the different phases of his existence.

The Marriage of Heaven and Hell. By William Blake. John W. Luce & Co., Publishers. Boston, Mass. 1906.

Containing the Marriage of Heaven and Hell, the Voice of the Devil, Proverbs of Hell, and a Memorable Fancy.

Modern Poets and Christian Teaching. Lowell. By William A. Quayle. Eaton & Mains Publishing Co., New York, N. Y. Cincinnati: Jennings & Graham. $1.00.

Lowell is discussed in this volume as Lowell the Puritan, the Religious Poet, His Moral Atmosphere, His Moral Passion, His Gospel of Nature Love.

Honore de Balzac. By Ferdinand Brunetiere. Edited by Alexander Jessup, Litt. D. J. B. Lippincott Company. Philadelphia and London. 1906.

This volume by the distinguished French critic, Monsieur Ferdinand Brunetiere, is an exhaustive biographical study of Honore de Balzac. It is the second of a series which "aims to do for French literature what has already been done for English men of letters."

The Centreville Ghost. By Wilde. Illustrated by Wallace Goldsmith. John W. Luce & Co., Publishers. Boston, Mass., and London. 1906.

A fanciful tale of the tribulations of a Noble English Ghost when his family mansion is bought by the American Minister to the Court of St. James.

Golden Rules of Pediatrics. "Medical Guides and Monograph Series." Aporisms, Observations, and Precepts on the Science and Art of Pediatrics: Giving Practical Rules for Diagnosis and Prognosis, the Essentials of Infant Feeding, and the Principles of Scientific Treatment. By John Zahorsky, A. B., M. D., Clinical Professor of Pediatrics, Medical Department Washington University, St. Louis; ex-President Bethesda Pediatric Society; Attending Physician to the Bethesda Foundlings' Home; Member of the American Medical Association, and of the St. Louis Academy of Science; Editor of the St. Louis Courier of Medicine; Author of "Baby Incubators," etc, With an Introduction by E. W. Saunders.

M. D., Professor of Diseases of Children and Clinical Midwifery, Washington University, etc. Price $3.00. The C. V. Mosby Medical Book Co. St. Louis. 1906.

Every one knows the value of an Aporism in expressing and emphasing a truth. From ancient times it has been a favorite method. In this book of Prof. Zahorsky's we have a very excellent expression of the most essential and important points in Pediatrics—the result of years of experience as a specialist in this particular line and as a teacher. The book is a valuable one to keep near at hand.

The Abdominal and Pelvic Brain with Automatic Visceral Ganglia. By Byron Robinson, B. S., M. D., Chicago, Ill. Frank S. Betz, Hammond, Ind.

This book is practically a treatise on the abdominal sympathetic nerves. It contains views concerning the anatomy, physiology and pathology of the abdominal and pelvic brain. The abdominal brain is the solar or epigastric plexus The pelvic brain is the cervico-uterine ganglion located on each side of the uterus. The author has produced a work not only of extraordinary interest, but also of great practical value. His views on the sympathetic nervous system and its inter-relations with the cerebro-spinal, or central nervous system, are original and practical. The volume is amply illustrated and the printing is well done.

Modern Plumbing Illustrated. A comprehensive and thoroughly practical work on the modern and most approved methods of plumbing construction. By R. M. Starbuck. Fully Illustrated. The Norman W. Henley Publishing Company, 132 Nassau St., New York. 1907.

A thoroughly practical work, written by a man of undisputed authority on the modern and most approved methods of plumbing. It illustrates and describes the drainage and ventilation of dwellings, apartments and public buildings. The work is the outcome of an improvement upon Starbuck's Series of fifty blue-print charts known as "Modern Plumbing Illustrated" which this book supercedes. The present volume treats in a comprehensive manner all the details of modern plumbing ranging from the connections of fixtures and other detail work to all classes of private and public buildings. The volume contains 384 large quarto pages with fifty-five detailed plates, each of which is accompanied by several pages of descriptive matter. Such a work is indispensable to plumbers, architects, builders, property owners, and for boards of health and plumbing examiners.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by W. T. Longcope, M. D., Philadelphia, U. S. A. Vol. I. Seventeenth Series. 1907. J. B. Lippincott Company, Philadelphia and London.

This volume is full of interest from cover to cover. A glance at the names of the contributors warrants the statement. The articles in the various departments are unusually good.

A Manual of Obstetrics. By A. F. A. King, A. M., M. D., LL.D. Tenth edition, revised and enlarged. Lea Bros. & Co., Philadelphia and New York. 1907.

The fact that Dr. King's excellent book has reached its tenth edition is guarantee of its worth. It is a concise work on obstetrics presenting an outline of its rudiments and essentials which makes it valuable to the student as a groundwork on which to build a more extensive knowledge. To the practitioner it is no less valuable as a ready reference book. This revised volume is thoroughly up-to-date in every respect.

A Visit to Henrik Ibsen.

I was asked, while in Munich, says Joseph M. Rogers in the April Lippincott's Magazine, to go with a chance acquaintance to make a call on the dramatist, who was spending the summer in the Tyrol. I was ready for anything, from a tramp in the Harz Mountains to a stagger at the sacred precincts of Bayreuth, and so I accepted—not without inward tremors. I concluded that nothing worse than being eaten alive could happen to me, and so we went.

The poet was in his garden when we arrived, and we were shown into his library, while a servant called him. I confess I have never been more astonished at the appearance of any man in my life, for I had not even seen a picture of him. He looked like a cross between a great-owl and a jinnee. His red face was surrounded by a perfect corona of white hair and beard, which stood out straight from his head and gave him a peculiar, and, I was about to say, a most sinister appearance, but that would not be true, for his smile was kindly, and his demeanor pleasant, though not in the least effusive. In the early stages of the conversation, which were either in German or French—with which I had no more than an Ollendorf acquaintance—my friend

would stop to interpret what the "master" said, though they were mere common-places. Suddenly some topic was sprung, and the two went at each other hammer and tongs, with a swiftness and volubility that was distressing. At the close of the discussion Ibsen smiled and shook hands, and we went out.

Naturally, I was curious to know what the discussion was about, but my friend—a European—was silent, except for ejaculating occasionally in various tongues: "Wonderful!" "Amazing!" "It is impossible!" and the like, and that is all I ever got out of him. But I have always had a kindlier feeling for Ibsen and his work ever since, because I could see, on closer inspection, that his face was marked with lines which betokened sorrow and distress. For though he was outwardly calm in the storm that raged about him, he was by no means indifferent to it.

The Transvaal Government's Diamond-Mining Interests.

I would refer to one element not political, which will probably do as much as anything to secure the tranquility and prosperity of the Transvaal. That is the extraordinary profit to the State which results from the successful development of the Premier Diamond Mine. This mine was discovered five years ago in the neighborhood of Pretoria, when a company was formed to work it, with a capital of $50,000, which was afterward increased to $400,000. The development of the mine was so rapid that it has in the last four years earned a net profit of $10,000,000. Half of this has been spent in opening up the property, the shareholders have received $2,000,000, or five times the amount of their original investment, and the Transvaal has received as its share of the profits over $3,000,000. By the new mining law, which is probably the only valuable contribution which Lord Milner made to the welfare of South Africa, the government is entitled to 60 per cent. of the profits. Last year from this one source alone the Transvaal Government received the sum of $1,800,000, and it is probable that its annual income from this single diamond mine will amount to $2,000,000 a year. There is probably no other State which claims so large an amount of the profits of the minerals found on its soil. There are other mineral deposits in the Transvaal which have as yet hardly been exploited. The brilliant success of the Premier Diamond Mine does much to justify the confidence of the Boers in the prosperity of their country, even after Chinese labor has been dispensed with.—From "The Restoration of the Transvaal to the Boers," by W. T. Stead, in the American Monthly Review of Reviews for April.

Abstracts of the Leading articles of the month.

Arteriosclerosis.—Klotz, in the British Medical Journal, concludes that the effect of the high-pressure drugs (adrenalin, digitalin, and barium chloride) on the arteries is a degenerative one. The muscle-cells of the media are first attacked, while the elastic fibers of this layer are also involved later. At a proper stage of the degeneration a fatty change can be demonstrated in the tissues, followed by calcification. The middle zone of the media is always involved. Occasionally secondary reactions occur in the intima which are of a proliferative nature. The effect of adrenalin is not abolished by lowering the blood-pressure with nitroglycerin. The aneurisms are produced as a result of the destruction in the media. These experimental lesions are in every respect similar to the Moenckeberg type of arteriosclerosis.

The effect of diphtheria toxins on the arteries is similar to that of the adrenalin series. Typhoid and streptococcus infections produce little destruction of tissue-cells, but tend to stimulate cell proliferation in the intima and inner layer of the media. Vessel changes are brought about by these infections which correspond to arteriosclerosis.

These experiments show that there is definitely a form of arteriosclerosis in which not a preliminary weakening of the media, but a primary proliferation of the intima, including the musculo-elastic layer, is the prime feature. Undoubtedly the Moenckeberg type of medial degeneration is common. But undoubtedly also in syphilitic and other cases a secondary and adoptive or compensatory overgrowth of the intima is met with.

The Treatment of the Status Epilepticus and Kindred Conditions.—Bokelmann (Therapeut. Monatsh.) says that frequently recurring attacks, complete or rudimentary, and characterized by consciousness in the interval, with absence of fever, are amenable to treatment by large doses of bromides (4.6 g.). Hypnotics, such as dormiol, chloral, veronal, trional, in the customary dosage, have a prompt and favorable effect. In cases where the bromides fail, the use of hypnotics is indicated also in youthful individuals and in children, where the series of attacks has continued for some time. Doses of dormiol at 2-3 g. or chloral hydrate at 0,5-1 g. will prove rapidly efficient. Search for and removal of a possible causative factor, such as obstipation, errors in diet, psychical irritants of all kinds, must not be neglected under any circumstances. Ener-

getic procedures are required in series of attacks with brief confused intervals, and those with total loss of consciousness, without fever or with very slight fever. The therapeutical measures here consist in immediate radical interference by all available means, such as cold baths in cases characterized by a high fever, mustard plasters, thorough intestinal evacuation by enemata, isolation and protection from strong stimulation by sound and light; administration of chloroform, dormiol, chloral hydrate and amylin hydrate, etc. The more energetic the procedure the better the prospects of success. There is no reason to dread doses of 30 g. dormiol or 9 g. chloral within 24 hours. In cardiac or respiratory weakness, camphor subcutaneously or digitalis are indicated. Strophanthus may be added to the enema or oxygen inhalations may be administered. The attacks are sure to have a more deleterious effect upon the heart and upon the respiration than the narcotics. In the beginning of the stage of exhaustion, the question of the patient's nutrition and invigoration is the most urgent therapeutical consideration.

Another Case of Complete Dislocation of the Cervical Vertebrae Ending in Recovery.—Riedel (Wiener Klinische Wochenschrift) says that about 20 cases of complete dislocation of the cervical vertebrae followed by more or less complete restoration of function, are on record. Of these only two have been verified by skiagrams. The following case is now reported:

A woman 45 years of age fell seven feet off a ladder, striking upon her shoulder and head. She was at once completely paralyzed, had severe pain in the back, attacks of syncope, disturbances of speech and retention of urine. Some restoration of function of the legs appeared after the second day; the arms remained paralyzed for over four months.

When admitted to the hospital five months after the accident, the legs could be moved in bed, the arms were almost completely paretic. The posterior spines of the fifth and sixth cervical vertebrae were palpable, but none higher up. Skiagraphs showed a complete forward dislocation between the fourth and fifth vertebrae with no lateral displacement. All the reflexes were exaggerated; the bowel and bladder under control. Attempts to produce reduction by extension, under ocular supervision of the X-ray, failed, likewise incision over the lesion with efforts at reduction. Along the anterior surface of the spinal column fibrous adhesions nullified attempts to correct the deformity. In spite of this ill success improvement continued and eight months after the accident the patient began to walk. Two months later locomotion was good, the arms could be moved to some extent and no sensory deficiencies were noted. The passing paralyses first noticed were probably due to hemorrhage. The spinal canal is not diminished in size by the accident. Most likely the anterior and posterior ligaments at first prevent increase of the deformity and later connective tissue growth, and possibly bony ankylosis, assure the safety of the patient. Operative interference can only be practiced with prospect of success if undertaken early, before adhesions have had time to form.

The Preparation of Silver-Rubber Impregnated Sutures.—Wederhake (Cent. f. Chir.) describes this new suture ligature material, which is being used with so much success at Prof. Witzel's clinic.

1. The silk, rolled in glass spools, is immersed in ether and then in absolute alcohol, for six hours each.

2. Transferred to 10 per cent. $H_2 O_2$ for twenty minutes.

3. Transferred to the silver solution for one hour. This silver solution is made as follows: To 30 c.c. of 1 per cent. $Ag.NO_3$ solution an officinal solution of KOH is added, until the brown precipitate ceases to form. This requires about 10 drops of KOH. A solution of NH_4 is now added, drop by drop, until the precipitate redissolves.

4. The silk is removed from the silver solution, and dried in an oven at 100 degrees C.

5. Transferred to chloroform for two hours.

6. Transferred to a 16 per cent. solution of black pure rubber in chloroform for twelve hours.

7. Washed in chloroform and preserved in 1 per cent. sublimate.

8. Boiled for ten minutes in 1 per cent. sublimate solution before using.

The advantages of this material are: (a) Its absolute sterility. (b) It does not imbibe fluids. (c) It is stronger than plain silk. (d) The method of preparation is simple (sic).

A New Method of Uniting and Suturing the Ends of the Ureter after it has been Completely Divided.—Pozzi (Deutsche medizinische Wochenschrift) mentions a case where the ureter was completely divided in the course of an operation. He united the stumps again by invaginating the upper end in the lower end, turning back inside the upper end of the lower stump. He first stretched the lower stump and then made a longitudinal incision for 2 cm. from the top. The upper margin was then turned back inside for 1 cm., bringing the outer aspect of the ureter into the lumen. The

upper stump was then introduced into the lower stump for a distance of 1 cm. The stumps were then sutured together and the ureter straightened out; the longitudinal incision was then sutured, not allowing the stitches to enter the mucosa. This technic of invagination and entropion brings the outer surfaces of both stumps together, ensuring perfect healing without tendency to cicatricial retraction. The parts are more liable to stretch than to develop stenosis. If desired, the circular buttonhole suture can be made over a small sound or hysterometer with crooked end, introduced through the longitudinal incision. Catheterization of the ureter is not required after the operation, he thinks, as the ureter is not inclined to necrosis, but displays a peculiar and quite extraordinary vitality. The author drains afterward; urine oozes out of the junction at first, but the ureteral fistula soon closes spontaneously.

Roentgen Ray Treatment of Leukemia.—Maragliano (Gazetto Degli Ospedli) says that the spleen and the glands in the neck were exposed; the bones were not exposed. Glands distant from the exposure decreased in size. This occurred before there was any change in the blood findings. The benefit derived in these cases persisted for a year and a half. He thinks by exposing larger areas,—especially the neck, in addition to the exposure of the spleen,—more rapid results would be possible than have hitherto been supposed. The curative process he attributes to a kind of auto-serotherapy. By filtering the rays through diachylon he eliminates the non-penetrating rays which are liable to affect the skin injuriously. This allows a more copious use of the curative rays.

Spontaneous Expulsion of a Carcinomatous Uterus after Cauterization with Zinc Chloride.—Blau (Zentralbl. f. Gyn) records a most uncommon and peculiar observation. A woman of 64 years was admitted to Chrobak's clinic in Vienna with a cervical carcinoma and a pyometra. After dilation of the cervix the retained pus escaped and for the next few days an attempt was made to stop the profuse secretion of pus from the large uterine cavity in order to reduce the risk of infection during the contemplated radical operation. Peroxid, tincture of iodine, brom-alcohol, etc., were used without effect. Therefore, finally, a strip of gauze soaked in a 30 per cent. solution of zinc chloride was introduced into the uterus and left 14 hours. The purulent discharge continued in spite of further treatment, when on the eighth day after the application of the zinc chloride the writer saw a greyish necrotis mass lie in the vagina. It was carefully pulled out and found to be the whole uterus. The microscopic examination of the specimen showed the corporeal carcinoma and typical uterine wall, but no peritoneal cover. A few days later an examination was made. The finger entered above the vagina a small cavity, apparently lined with a smooth membrane through which intestinal loops could be distinctly palpated. The patient made an uninterrupted recovery, and two months later was still enjoying good health. It would seem that the demarkation of the necrotized uterus took place just below the peritoneal cover. Of course it cannot be definitely stated whether this spontaneous elimination of the carcinomatous uterus means a total elimination of all cancerous tissue. A slight hardening felt in the parametria could possibly have been due to an inflammatory infiltration. He, in this connection, quotes a few cases recorded in literature in which cauterization with zinc chloride undoubtedly effected the complete necrosis and thus cure of cervical cancers. This observation of the author is interesting and noteworthy in that it clearly demonstrates the advantages and the possible dangers of the use of zinc chloride in concentrated solutions.

Amyl Nitrite in Haemoptysis.—Hare, in the London Medical Lancet, is convinced of the value of this drug. He reports several additional cases. The author now has records of 34 cases of hæmoptysis, and in all but one the bleeding ceased immediately upon nitrite of amyl inhalations. The quantity used has been from 3 to 34 minims. The writer calls special attention to the work of Pic and Petijean, who have demonstrated experimentally the action of the remedy. Dogs weighing from 15 to 20 kilograms were curarized, part of the chest-wall removed, and artificial respiration was performed. Amyl nitrite was then injected into the femoral vein. Within a few seconds white patches commenced to form on the surface of the lung. These steadily extended, then coalesced, so that finally in from two to three minutes all, or nearly all, the lung parenchyma became exsanguine. This extreme effect lasted several minutes, but from seven to ten minutes elapsed before the normal rose color returned. It would seem that the vasomotor influence of the drug, at any rate upon the pulmonary circulation, is more enduring than has been suspected. The hæmostatic power of the vascular change was demonstrated by snipping the anæmic lung with scissors, when hardly a drop of blood exuded. Pic and Petijean consider that the drug acts through an active vasoconstriction of the pulmonary system, not less than through vasodilatation

of the systemic periphery. They state that synchronously with the paling of the lung, there is a rise of pressure in the pulmonary artery. Against this conclusion, however, must be placed the clinical fact that amyl nitrite is equally efficient in many hæmorrhages from the systemic vessels. Menorrhagia, apparently from any cause, may, as a rule, be effectually controlled by a single inhalation a day.

Scarlet Fever Rash.—MacCombie (British Medical Journal) says that the typical rash of scarlet fever is twofold in character: a finely punctate, slightly raised, papular portion, and an erythematous portion, the former being usually regarded as the more characteristic feature of the rash. The eruption is general, its tint varying from a rose pink to a light red. The characteristic tongue is at first white with the fungiform papillæ showing as red dots; later on it is clean and markedly red. In the fauces there is a ring of bright red injection, involving the free edge of the palate and tonsillar pillars.

The true eruption of measles is sometimes preceded by a bright red rash suggestive of scarlet fever; it is usually erythematous and not punctate, catarrhal symptoms are present and also Koplik's spots. In smallpox, prodromal rashes counterfeiting scarlet fever are very common; they are, however, almost purely punctate, and the general symptoms (severe headache and backache, high fever, and an absence of sore throat) usually serve to differentiate these cases, the throat signs being the really important confirmatory point in the diagnosis of such cases.

He calls attention to the extremely unfavorable prognosis in cases of diphtheria in which hæmorrhages appear in the skin. They are only met with in cases which have escaped early treatment with diphtheria antitoxins; they occur almost exclusively in patients under twelve years of age, and are most common in cases of severe faucial diphtheria usually associated with nasal diphtheria. Persistent epistaxis on the fourth or fifth day precedes the skin hæmorrhages, also persistent vomiting and evidences of cardiac failure. The duration of life after the hæmorrhages is usually four or five days.

Euquinine and Aristoquinine in the Treatment of Pertussis.—Binz (Berl. Klin. Wchschrft) says that the management of whooping-cough with large doses of quinine is frequently interfered with by the bad taste of the remedy. Euquinine and aristoquinine are two tasteless preparations of quinine which guarantee a successful management of pertussis. The former, the carbonic acid-ethylester of quinine, insoluble in water, therefore tasteless, and dissolves only in the hydrochloric acid of the stomach. According to the old rule to administer twice daily as many decigrams as the child is years old, and during the first year as many centigrams as the child counts in months, the writer treated two little boys with euquinine, with the result that in one of these cases the attacks very promptly diminished in number and severity, the whooping-cough being cured by the thirtieth day of the treatment. In the other patient, who came under treatment very early in his disease, two weeks sufficed for the cure. No untoward effects were associated with the medication; slight disturbance of hearing subsided after omitting the remedy for one day. A disadvantage consists in the high price of the remedy. It is best administered in tablets of 0.5, which are pulverized in the mortar and given dry to the children together with two or three teaspoonfuls of fine chocolate powder. A little water is swal lowed afterwards. A little later some acid drink may be served, which is not suitable at the time, since it dissolves the powder and brings out the taste of the quinine.

The prescription in powder shape is cheaper: ℞ Euquinin. puri subt. pulv. 10.0. Div. in art. æg. No. 20. Sig. To be taken twice daily. This powder may be subdivided into still smaller portions by any intelligent mother or nurse.

Aristoquinine is the neutral carbonic-acid-ester of quinine, its dosage and action resembling euquinine, being still more expensive, however. The author very urgently advocates the employment of sufficiently large doses of these two preparations in the management of pertussis, expecting favorable results from this form of treatment.

Vinegar as a Haemostatic in Gynaecology.—Gilly (Gazette de gynecologie) reminds obstetricians that in every cottage there is a valuable hæmostatic which can be utilized in an emergency. A pint of vinegar, a tablespoonful of table salt, and a couple of clean handkerchiefs, are always at hand. In a profuse hæmorrhage following a miscarriage or after labor, the patient is made to drink half a glassful of pure vinegar, and the vagina is tamponed with the handkerchief moistened with the vinegar and salt. This is done with the patient in the obstetrical position lying across the bed with her head low, the thighs and legs strongly flexed, and the hips at the edge of the bed. The vagina is cleared of clots before introducing the tampon. The bleeding stops immediately, but the patient is kept for a time in this position, until reaction takes place, which is hastened by an enema

of a quart of normal salt solution. The simultaneous internal administration of vinegar by the mouth, he regards as an important aid to the local hæmostatic. This agent, although having a flora of its own, is known to be bactericidal to pathogenic varieties of micro-organisms. It may be given in its ordinary state, or, if there is time, it may be filtered and boiled previous to use.

Binocular Vision.—Fergus (Brit. Med. Jour.) mentions the use of plastograms, or stereoscopic pictures, the one printed in red and the other in green, in testing a patient's consciousness of perspective.

It is often difficult to ascertain whether a person really has a sense of the third dimension. All doubt on the matter can easily be dispelled by asking the patient to sway himself slowly from side to side while examining a plastogram. Anyone with fully developed binocular vision will find that the objects in the foreground appear to move in the same direction as he moves. As he closes one eye the apparent movement at once ceases, for the condition of its being present is that both eyes shall be used simultaneously.

Catarrh of the Bladder.—Edelson in the Medical Press and Circular is of the opinion that local treatment should be used in those cases only in which internal treatment fails. It should not be undertaken without necessity, and physicians, he states, would be much less frequently placed in a position of being obliged to wash out the bladder if they more frequently made use of the old, tried remedies for cystitis. For washing out, the milder remedies will generally be sufficient, and especially the 3 per cent. solution of chlorate of potash recommended by Boegehold; silver nitrate will only be necessary in rare cases. Boric acid and resorcin, both in 2 to 3 per cent. solution, have also proved very useful. Washing out with permanganate of potash is not without danger, as the possibility is not quite excluded that the sediment caused may not in part adhere to the mucous surface of the bladder; and occasionally it may give origin to a concrement.

A New Method of Producing General Anaesthesia by Ethyl Chloride.—Hoton (Revue pratique d' obstetrique et de gynecologie) describes a new method of administering ethyl chloride for the production of general anaesthesia without the aid of a mask or other apparatus. In 1894, Carlson, of Gothenburg, wishing to produce local analgesia in order to extract a tooth, used the ethyl chloride spray, and found that his patient became anaesthetized, thus accidentally discovering the narcotic properties of ethyl chloride. The same result has been since reported by others. Acting upon this experience, the author found that by directing the spray into the patient's mouth, while nasal breathing was suppressed by compressing the nares between his finger and thumb, he obtained complete general anaesthesia, with a minimum expenditure of the ether. The patient may be sitting up or lying down, he may be fasting or not. Artificial dentures are removed from the mouth, and the clothing loosened so as not to interfere with respiration. The patient is told to breathe through his mouth, while his nose is closed by pressure for a few minutes before administering the anaesthetic. Into the partly opened mouth the operator projects a jet of ethyl chloride, so that it is directed towards the base of the tongue. If a frost bite of the lips is feared, the end of the tube may be introduced as far as the line of the teeth if the patient is docile. If he is refractory and closes his mouth, then it is directed through any vacancy caused by loss of teeth, or even between the cheek and the gums. At the end of ten to thirty seconds narcosis is produced. The spray is at once discontinued and the operation performed. If the patient revives before the operation is concluded, the spraying of the mouth may be repeated. He considers this plan much more convenient than with the ordinary methods with the use of chloroform. The writer says that it is almost entirely without danger. Recovery is rapid and is rarely accompanied by vomiting. Some patients, however, seem to have some hysterical or nervous excitement for a time. Ordinarily, after five minutes the patient can get up and go about his business. It is important that the tubes shall contain pure ethyl chloride when used for this purpose. Failures have resulted from an inferior product.

Roentgen Diagnosis in Tuberculosis of the Lungs.—Pfoerringer and Bunz (Muench. Med. Wochen.) mention the importance of examination of suspected tubercular cases with the X-ray. The diagnosis can often be made in this manner when other methods leave us in doubt. In order to obtain the best results in treatment, the diagnosis must be made as early as possible. The physical examination is often doubtful; the finding of tubercle bacilli usually occurs too late; the tuberculin test cannot be applied by everyone. They report their findings with the X-ray in 136 cases. In 82 of these cases advanced changes were found. Chronic advanced tuberculosis shows itself as a large diffuse shadow and is easily recognized. In 42 cases the Roentgen find-

ings corresponded with the results of the physical examinations; in 30 cases the Roentgen rays revealed more than the physical examination, and in 10 cases, less. Cavities, in order to be seen, must occur in infiltrated areas and be empty. Latent central affections, glands, and peribronchitic affections are brought out by the X-ray when physical examination fails entirely to reveal them. Pleuritis sicca is not visible; exudative pleuritis is. Incipient apical catarrh demands most careful interpretation. In 54 cases showing apex involvement of some sort, 25 of them were shown by the X-ray to be tubercular in character.

The movements of the diaphragm may be seen with precision and any variation in them, and their relations to tubercular involvement, considered. Williams's sign, the unilateral diminution of the diaphragmatic excursion on the affected side, is a valuable one as studied by the X-ray.

Unusual Complications of Basedow's Disease.—Mosse (Berl. klin. Wochen.) records some interesting observations in cases of Basedow's disease. In one case in which there was marked improvement of the chief symptoms, there occurred a right-sided Graefe symptom with left-sided ptosis. These observations bear out the beliefs of Uhthoff that in Basedow's disease there is an involvement of the bulbar nerves, especially the motor nerves of the eye. Whether the medulla oblongata is the seat of the primary lesion, or simply the locus minoris resistentiæ for the products of the thyroid gland, has not been determined. In another case with very pronounced symptoms there was total absence of a visible or palpable goitre. There was, in addition to the tachycardia, a marked irregularity of the heart's action not traceable to arterio-sclerosis. It was most probably due to the direct action of the poisons on the cardiac ganglia, or the myocardium. In 128 cases this was the first of the kind that he had observed.

A third case presented glycosuria. Naunyn, though he himself had never observed a case of Basedow's disease with spontaneous glycosuria, states that a number had been reported in the literature.

Reaction for Bile.—Krokiewicz (Munch. Med. Woch.) says that three reagents are necessary: (1) a one per cent. aqueous solution of sulphanilic acid; (2) a one per cent. aqueous solution of sodium nitrite and (3) pure concentrated hydrochloric acid. Solutions one and two are mixed, at the time of the test, in equal proportions. A few drops of the mixture are placed in a test tube and an equal quantity of the fluid to be tested is added. The tube is well shaken for a few seconds, the contents assuming a ruby-red color. One or two drops of the hydrochloric acid are then added, and the whole considerably diluted with distilled water. In the presence of bili-rubin or other bile pigments the solution assumes an amethyst color. The reaction never occurs in the urine after the internal administration of chrysophanic acid, santonin, copaiba, antipyrin, phenacetine, the salicylates, iodine, bromine or quinine, and does not depend upon the presence of indican in the urine nor upon those factors which produce the diazo reaction. The reaction is quite sensitive, occurring very readily in a 1-500 dilution.

Acute Primary Pseudo-tuberculosis Aspergillina.—Baccarani (Gazz. degli Ospedali) reports three cases of acute pulmonary aspergillosis from his private practice. Two of these cases terminated fatally within seven and nine weeks respectively, under the clinical picture of true acute tuberculosis. The patients were three members of one family, whose occupation did not suggest a predisposition to aspergillosis. In his discussion of the clinical picture of pseudo-tuberculosis, the author says that this disease is divided into four groups according to its ætiology, the last of these groups being the mycotic form of aspergillosis, caused by mould fungi. This form has been chiefly studied and described by French authors. Dieulafoy believes it to be much more common than is usually assumed. In its clinical course as well as by the macroscopical pathologico-anatomical findings, this aspergillus tuberculosis is said to differ in no way from tuberculosis caused by Koch's tubercle bacillus. It presents the same formation of tubercles, from the size of a millet seed to that of a pea, with hyaline and cheesy degeneration, and a tendency to result in cavities. Microscopically, these tubercles are seen to consist of lymph cells, epithelial cells with giant cells in the centre. The sole point of difference is that the demonstration of a tubercle bacillus remains impossible. On the other hand, mycotic threads are found in the protoplasm of the giant cells, and the surroundings of the cells frequently contain mycotic clusters having a great morphological resemblance with actinomycosis, especially those forms of Koch's pulmonary tuberculosis which are suggestive of actinomycosis. The differential diagnosis becomes extremely difficult when, as not infrequently happens, an infection with Koch's tubercle bacillus is superadded to a mycotic pseudo-tuberculosis. In these cases, the diagnosis can be ascertained only by careful examinations of the sputum, combined with injections of tuberculin.

The Injection of Man with Bovine Tubercle Bacilli.—Weber (Deutsch. Med. Woch.) says that bovine bacilli only in exceptional cases cause a human tuberculosis, although local infections, not followed by dissemination, are not so rare occurrences, has during the past two years commenced to penetrate deeper and deeper in our dealing with the human disease. The few exceptions do not play any part in the general measures to be adopted for the elimination of the disease. The latter have only to deal with the human bacillus. That nevertheless, on general principles, the slight danger menacing the human race through the bovine virus, must not be altogether lost sight of, is also the opinion of Weber, and to a degree one can consent to it. With the general endeavor for pure food and hygienic conditions, the products of cattle must be watched as others, aside from the great financial importance, that the ravages of the disease in these animals have on the wealth of the country. While the apprehension of danger from infection with bovine virus must be subdued, the elimination of bovine tuberculosis is a problem, that indirectly belongs to our plans of improving the modes of life.

Tuberculosis of the Fallopian Tube.—Lea (Jour. Obstet. and Gyn. of Brit. Emp.) states that the disease usually commences by the appearance of miliary tubercles in the mucous membrane of the tube. The process in most cases extends as a diffuse miliary tuberculosis, in which the mucous membrane is greatly thickened, area of caseation appear, the abdominal ostium is occluded and perisalpingitic adhesions are formed. As a result of the closure of the ostium a tuberculous pyosalpinx may form. The process may take the form of a diffuse fibroid tuberculosis, characterized by a formation of considerable fibrous tissue in the walls of the tube. In some cases the tube may show merely catarrhal changes, and the tuberculous character only demonstrated by inoculation into guinea pigs. The ovary escapes infection in the majority of cases. Contrary to the findings of most observers the writer did not find the uterus involved in a series of eight cases. An absolute diagnosis is not always possible, the previous history of the patient's menstrual changes, pain and leucorrhea are important. No rise of temperature is to be expected when the disease is not limited to the tube. Bimanual examination is not specially suggestive unless tuberculous peritonitis is associated with tubo-ovarian swellings. The prognosis is reasonably good if the tubes are removed before general tuberculous infection has occurred. Without operation the disease steadily progresses to a fatal termination.

Origin of Pulmonary Tuberculosis — Schlossman and Stengel (Deutsche med. Wochenschrift) by their experiments prove that tubercle bacilli taken into the alimentary canal with the food enter into the system by the same source as the food. The bacilli pass into the mesenteric glands, and from thence into the thoracic duct, the result being an infection of the bronchial glands and lungs. The bacilli pass as readily through the intestinal mucosa and into the mesenteric glands as do the drops of fat, etc., taken up from the food. The writers found tubercle bacilli in the lungs in the guinea pigs used for experiment a few hours after they had been administered in milk.

Myiasis Intestinalis.—Wirsing (Zeitschrift fur klin. Medicin) reports three cases in which fly larvæ were discharged from the intestine. The patients were two children under five, the other a child nursing at the breast. In the infant there were no disturbances from the maggots, and the flies had in all probability deposited their eggs in the anus as the child was taking an air bath at an open window. The older child had for some time suffered from gastrointestinal trouble, and on treating an exacerbation of this condition with calomel about fifty maggots were expelled.

Appendicitis in Nursing Children — Kirmisson et M. Guimbellot (Revue de Chirurgie) report the case of an eleven months male infant which developed abdominal pain, distension and constipation. Sixty hours after the onset enormous distension, tenderness in the right iliac fossa and facies hypocratica were noted. The diagnosis rested between appendicitis and intussusception. At operation a seropurulent diffuse peritonitis originating from a perforated, partly gangrenous appendix was found. The child died within a few hours.

Twenty-six cases have been collected from the literature. Most of the infants were bottle-fed. Etiologically, gastroenteritis appears to play a more important role than in adults. There are two modes of onset, one slow and masked by the enteritis; the other acute, giving the symptoms of intestinal obstruction. In no case has rectal examination given useful information, possibly because of the high position of the cecum during infancy. Of the 26 cases 9 occurred during the first year, 17 during the second year of life; there were 19 deaths. Under one year of age all died; all the recoveries took place in children over 18 months. This may be due to the fact that

encapsulated abscess appears to form only in the older children. Operation was performed 19 times with 7 recoveries.

The conclusions drawn are that appendicitis in the first two years of life is not as uncommon as is generally believed. The course of the affection is very rapid and its prognosis extremely grave.

The only recoveries obtained followed upon operation in the acute stage, which appears to make immediate operation an absolute indication. The greatest obstacle is the difficulty in making an early diagnosis.

Acute Intussusception in Children.—Klemm (Dtsch. Ztschrft f. Chir.) says that surgical interference is indicated in order to free the bowel from a position which threatens to render it necrotic by disturbance of the mesenteric circulation. This nutritional disturbance of the bowel, due to occlusion of the mesenteric vessels, must be relieved as soon as possible, before the infection of the peritoneal cavity promptly annihilates the results of the operation. Upon the basis of his experience with nine patients, from five months to two years of age, and of an extensive review of the literature, the author arrives at the following conclusions:

1. The diagnosis of intussusception is easy. It depends upon the demonstration of the invagination, as shown by swelling, and the passage of bloody mucus per anum.

2. The examination of the abdomen should invariably be conducted under general anæsthesia.

3. The most important therapeutic indication consists in the re-establishment of the obstructed mesenteric circulation.

4. All internal therapeutic measures are to be rejected as inadequate to deal with the condition of the incarcerated segment of bowel.

5. Whenever the diagnosis is positive laparotomy must be performed, because this form of treatment alone can be relied upon to re-establish normal conditions.

In the writer's cases disinvagination was always accomplished by gradually crowding the invaginatum from the tip through the entire sheath of the invaginans, using the thumb and index finger of both hands. After the invaginated bowel segment has been reduced, bit by bit, through these manipulations, cautious traction may be employed for the purpose of determining that the surfaces of the intussusceptum and intussuscipicus slip smoothly by each other. It is a serious mistake, however, to attempt the reduction of the invagination only by means of traction, because the mechanical conditions of the intussusception are not recognized in this manipulation. The outcome of a given case depends not alone upon the duration of the intussusception, but also upon the degree of the obstruction of the mesenteric circulation.

A Discussion on Affections of the Lachrymal Passages.—Osborne (British Medical Journal) says that a simple obstruction of the lachrymal passages does not produce constant epiphora and that constant epiphora may exist where the lachrymal canals are perfectly normal.

Risley, considering the anatomic conditions giving rise to obstruction, says that when the cause of epiphora lies in the puncta or canaliculi gentle dilatation after cocainization is usually sufficient to effect a cure.

When the sac is inflamed, a preliminary slitting of the canaliculus, followed by the injection of cocain-adrenalin, will contract the swollen tissue so that fluids will pass into the nose without the necessity of probing the nasal duct. When fluids can be made to pass, the inflammation of the sac and nasal duct will rapidly subside without probing.

Purulent affections are treated with astringents after cleansing with a solution of peroxide of hydrogen; many are managed without probing.

When probing is necessary, the soft tissues are shrunk as much as possible and B. 3 or 4 is cautiously passed to the floor of the nose and left in situ twenty minutes. Attention is called to the necessity of treating the nose in the region of the turbinates.

Theobald advocates the use of his large probes.

Weeks deals with obstruction due to thickening of the lining membrane due to cicartrices. He uses gold styles, either solid or plated. The diameter of style should be about one mm. less than the diameter of probe passed. A temporary style of 3-4 American gauge lead wire is made to conform to the individual requirements. With this as a model a permanent style of 18K. gold wire is made by the surgeon. It should be removed every 3-7 days, and the passages irrigated. Complications and accidents are dragging the inner canthus downward, irritation of the eyeball, displacement of style, concretions, absorption and perforation of the horizontal plate of upper maxilla, cutting through the wall of canaliculus by weight of style and formation of granulation tissue.

Results: Permanent recovery in from two to nine months. Recurrences are not common.

Endocarditis and Muscular Rheumatism.—Bechtold (Medizinische Wochenschrift) says that in 1894 Leube reported three cases of muscular rheumatism accompanied by endocarditis and expressed the

opinion that muscular rheumatism was an infectious disease, giving as reasons for his opinion the frequency of the disease at certain times, the general prodroma, the flitting and extension of the pain to many muscles, the occurrence of fever—one-third of the cases—and the endocarditis. During the rainy season last summer at Wurzburg, there was almost an epidemic of rheumatic diseases, and two wards of the hospital were filled almost exclusively by patients sick of muscular rheumatism, and six patients developed endocarditis. This led the writer to examine the clinical histories of 902 cases of muscular rheumatism treated in the hospital since 1893, and he found that in a large number of instances there were heart murmurs, impure tones and extension of heart dullness with and without accentuation of the second pulmonic tone, angina and rheumatic fever. In eleven cases endocarditis developed after hospital entrance, and in three cases permanent mitral insufficiency developed. Leube believes that the specific course of muscular rheumatism is closely related to rheumatic fever, but believes that the different behavior of the two diseases towards the salicyl compounds proves that they are not identical. He believes that infectious myositis is but a grave form of muscular rheumatism, and would class both diseases and rheumatic fever as septic infections not caused by a specific germ but by any and all germs, as staphylococci, streptococci, typhoid bacilli, influenza bacilli, that may cause suppuration. The fact that myositis rarely leads to suppuration is attributed to mildly virulent germs. The infection may occur through slight wounds of the skin, the tonsils and the alimentary tract. The author would credit all cases of muscular rheumatism not traumatic or toxic to an infection by mildly virulent bacteria causing serious inflammations.

Treatment of General Peritonitis.—Robson in The London Medical Lancet says that to properly understand the treatment of peritonitis we must first grasp certain facts.

(1) That the lethal issue of acute peritonitis is due to poisoning from toxins formed in, and absorbed from, the general peritoneal cavity. (2) That infection may arise either from perforation of one of the hollow viscera directly into the peritoneal cavity or from the passage of infective germs through the unbroken walls of the gastro-intestinal canal or its diverticula in certain unhealthy conditions. (3) That in cases where the peritoneum is not flooded with septic organisms, as in perforation of a hollow viscus, the first organisms to migrate are the mild staphylococci albi, which gives rise to increased phagocytosis, and to a certain extent prepare the peritoneum against further invasion. (4) That in certain cases the peritoneum is flooded with virulent organisms, and the patient may be killed in a short time, if they are not removed, if needful by eviseration, irrigation and thorough cleansing. (5) That the use of opium masks the symptoms, and later it increases intestinal paresis and leads to distention, and it also tends to diminish leucocytosis. (6) Drainage, to be effectual, must be preceded by the repair or removal of the cause. (7) The administration of saline fluid by rectum is one of the most valuable factors in the treatment. (8) The semi-sitting posture is of great benefit after operation, as it allows the fluid to drain into the pelvis, where it is removed by the drainage tube. It has been proved that absorption takes place more rapidly through the lymphatics of the diaphragm. (9) All food or fluid, given by the mouth, sets up peristalsis not only of the stomach but also of the intestines, and this tends to spread the septic material. Therefore, withhold all food and fluid by mouth before operation and feed entirely by rectum. (10) The use of aperients in the early stages must always be considered dangerous. For the successful termination of this disease an early diagnosis and immediate operation are essential.

The Elimination of Mercury by the Urine.—Welander (Archiv. f. derm. und syph.) says that all observers have found that mercury, introduced into the system in various ways, is eliminated inconstantly and periodically and that it remains for some time in the system. The author showed, in 1885, that not only is mercury eliminated by the urine, but also to a considerable extent by the fæces. Attempts were then made to determine quantitatively the amount of mercury excreted. By measuring the amount of mercury excreted after the various methods of administration, it was thought that a comparison could be made of the amount of the drug that was absorbed into the blood. A comparison of the elimination of mercury excreted after being administered by inunction, injection and by mouth follows:

1. In the administration by mouth the amount of absorption is uncertain, though it can be considerable. The time the drug remains in the system depends upon the amount of absorption and cannot be determined without a chemical examination in every case.

2. Subcutaneous injection of soluble salts, as the bichloride, is followed by rapid and powerful absorption and the drug remains for a considerable time in the system.

3. The insoluble preparations are divided into two classes: (a) thymolate of mercury, salicylic of mercury and calomel; (b) oleum cinereum and oleum mercuriol. Of these preparations the salicylate of mercury is the most useful. Injections of thymolate of mercury and calomel produce a powerful though not a rapid absorption. The drug remains long in the system, as after stopping treatment areas of mercury remain from which absorption steadily takes place. Ol. cinereum and ol. mercuriol are absorbed slowly and remain a considerable time.

The more rapid and powerful the absorption of mercury the quicker the symptoms of syphilis disappear. The longer the mercury remains in the body the longer time it will take for relapses to make their appearance. Accordingly, the method of administration of mercury will be the best which produces the most rapid absorption, and in which the drug remains for the longest period of time in the body. According to the writer, the method of administration which best fulfills these conditions is the method of inunctions. Next in value to inunctions are injections of salicylate of mercury.

The Treatment of Rodent Ulcer by Zinc Ions.—Jones in The British Medical Journal says that the apparatus required for this therapy is simple. An ordinary medical continuous current battery, with a galvanometer, a pair of wires, a flat pad for completing the circuit at the negative pole, and a rod or other electrode of zinc attached to the positive pole, completes the outfit. The zinc must be covered with three or four layers of lint, which serve as a reservoir to hold the zinc solution, a two per cent. solution of the sulphate being very suitable. The zinc should be freshly cleaned or amalgamated, and the solution should be made with distilled water. It is as well not to touch the zinc electrode or its covers with the fingers unnecessarily, because every touch imparts a trace of sodium chloride from the skin, and tends to reduce the efficiency of the process a little by bringing in some foreign ions. The circuit is completed through the usual pad electrode applied to any convenient part of the patient, the zinc electrode of suitable size is held upon the rodent ulcer, and the current is slowly turned on until a current of five, or eight, or ten milliamperes is reached, according to the size of the electrode used. Leduc has advised that a suitable magnitude of current to use is two or three milliamperes of current for each square centimeter of the positive electrode, and, in general, patients can bear this concentration of current without complaining. The sensation produced is a burning one, not unlike that of a mustard plaster. In patients who are sensitive it may be convenient to introduce a little cocaine beforehand. When the surface is raw the cocaine solution can be directly applied on a tuft of cotton-wool left in contact with the ulcer for a few minutes. When there is no raw surface the drug can be helped to penetrate electrolytically from the positive pole if, before using the zinc solution, a tuft of wool moistened with cocaine solution is applied to the surface of the rodent ulcer, and the current passed in with the zinc electrode, exactly as for the introduction of the zinc. The preliminary use of cocaine permits of the use of a somewhat stronger current. It is necessary to use a pure solution of cocaine, and not a solution containing sodium chloride or any other salt. Occasionally the condition of the ulcerated surface offers some difficulties to the even distribution of the zinc ions. Occasionally, also, it may be necessary to puncture certain areas with the zinc needle if the application of a flat electrode is not practicable. Other cases which are difficult are those which have been operated upon by X-rays or by the knife, and have relapsed, for they have a tendency to recur at several points around the original site, and also to invade the subcutaneous tissue. If they have a thickness greater than two or three millimeters, it is difficult, in a reasonable time, to drive the zinc ions inwards to a sufficient depth to influence the deeper parts, unless a zinc needle is used. The advantage of using a needle is that time is saved, for if one can push the zinc needle into the depth of the part to be destroyed, the migration of the ions into the surrounding layers is accelerated, and this is a great advantage, because the rate of movement of the zinc ions is slow.

The Use of the Bromides.—Hartenberg (La Presse Medicale) points out that the administration of the alkaline bromides in the various neuroses is at present open to much discussion. In certain neuroses, such as epilepsy, chorea, hysteria, etc., these drugs occasionally produce brilliant results. On the other hand, there are a number of authorities who protest against the use of bromides in large doses, and who maintain that these large doses are responsible for aggravating the functional trouble. The greatest contra-indication to the use of the bromides is the depressant effect which they exert upon the nutrition of the body. Then it diminishes the elimination of urea and phosphoric acid. As a large number of the neuroses are manifestations of functional disorders of nutrition rather than of pure functional nervous disturbances, the author believes that the bromides are distinctly

contra-indicated, and in cases of neurasthenia in which the nervous system is depressed, their use still further increases the depressionr The depression is most marked in those cases in which very large doses of potassium bromide are used; lithium, strontium and sodium bromides being much less depressant. The strontium bromide is probably the most satisfactory of all these salt, but even it should not be given freely for long periods of time.

Orthotic Albuminuria.—Heubner (Berl. klin. Wochen.) says that several theories have been promulgated in explanation of orthotic albuminuria. As yet, however, no satisfactory explanation has been offered. In children it occurs not infrequently. Edel has attributed it to cardio-vascular changes which he found in a number of cases. Erlanger, Hooker, and others, have made a careful study of the blood pressure in this connection. It was found diminished in those with orthotic albuminuria. Loeb found the Koranyi quotient increased; a decrease of the sodium chloride excretion with simultaneous diminution of the quantity of urine. Inasmuch as this does not occur in nephritics he believes that most of the cases are of cardio-vascular origin. He mentions the case of a child ten years of age, who had 4 pro mille of albumin in the urine when up and about, and which promptly disappeared with bed rest. The child died ultimately of cerebral abscess which offered the first opportunity to examine the kidneys in a case of this sort. Aside from a slight hyperemia and a few foci showing slight fatty metamorphosis of isolated cells, the kidneys were found practically normal. There were, however, evidences in the lungs and lymph nodes of a tubercular process, which tends to corroborate the statement of Mery that these cases are not infrequently a "pretubercular" manifestation.

Miscellaneous.

"Organization" War on "Independent" Medical Journals.

Before the annual meeting of the A. M. A. at Boston in June of last year, the question of the "official organ" (or National weekly and State Association monthly journals) *versus* the so-called "independent" medical journals of the country—principally the weeklies and monthlies—had reached a point of acuteness at which it was deemed desirable, or at least a matter of policy, that a disclaimer be expressed and published by A. M. A. officialdom in contradiction of the "alleged" belligerency on their part and that of their State Association co-adjutors along the line indicated.

This disclaimer was accordingly made and was so couched as to serve a two-edged purpose—(1) to quiet the apprehensions of publishers who took the expression superficially and (2) to shake the Damocletian sword in the faces of their fellows of a greater prescience before the actual suspension of the weapon above such journalistic heads as might—from the point of view of A. M. A. officialdom—continue to offend by their persistence in carrying the advertising of proprietary pharmaceuticals which said A. M. A. officialdom, for one arbitrary reason or another, had seen fit, or found it desirable and convenient, to "tabu."

The resolution as adopted by the House of Delegates of the A. M. A. disclaimed any intention on the part of the National and State Associations and their journals to injure "independent" medical journals owned or edited by physicians. It was conceded that the latter publications had done excellent work *in the past* for the development of medicine and in diffusing the knowledge of its advances. Under pressure, therefore, it was deemed expedient that "such medical journals as did not receive *unethical advertisements*"—that is, advertisements of products falling below the standards established by the A. M. A. Council on Pharmacy and Chemistry, and consequently refused "recognition" by the latter in "New and Non-official Remedies," the suggestion being that they were thereby banned and outlawed—"should be graciously recommended to the support and patronage of members of the American Medical Association."

As not a single "independent" medical journal of the country meets—in the matter of the advertising it carries—the specific requirement by which alone the recommendation of the House could become operative, the inference is obvious that the actual intent was to deprive them of any benefit under the recommendation quoted and, inversely, to boycott them until they yielded or—by force of circumstances to be created and measures used specifically as occasion arose and opportunity served—they were swept permanently from the field.

A little while ago the editor of a Southern medical journal feelingly wrote in comment on the condition discussed above—that "Journals 'owned by physicians' will be spared a little longer and if, perchance, they *can* come up to the standard of cleanliness established by its advertising censors, they *may* be recommended to the members of the A. M. A."

In the July issue of American Medicine we find the following leading editorial expression on the subject:

"Independent medical journals were en-

dorsed by the House of Delegates of the American Medical Association at the Boston meeting. This action was taken because of ugly rumors that the Association was attempting or would attempt to destroy all journals except those it owned or controlled. Enemies of organization were using these rumors to its injury. It is difficult to understand why any one would be so lacking in judgment as to attack the journals whose efforts have undoubtedly been the most potent cause of the present uplift of all organizations—county, state and national. If these journals have been instruments for the creation of the organization, common sense should tell us that, if made enemies, they may be used for its destruction. How foolish to turn friends into enemies, and how treasonable to the organization, and how lacking in common honesty to stab those who have so aided us. No, we cannot believe such rumors are correct—they presume a standard of honor too low."

* * * *

As, however, our esteemed Philadelphia contemporary has since been honored by the distinguished consideration and delicate attentions of Editor Jones and the California State Journal of Medicine (issue of December, 1906), it may be that its opinion as to the "standard of honor" involved may have undergone, in the interval, a corresponding change. In any case, the following—abstracted from the report of its special representative at the Boston meeting—appeared in the same (July) issue of American Medicine:

"The resolution with regard to the independent medical journals did not seem to excite any spontaneous burst of gratitude and appreciation, judging from certain free expressions by members of the 'Editors' Association.' Among the exceptions taken in such informal discussions, a number of points were raised, not with regard to the expressed or overt intent of the Association and State journals, but as to *rational deductions and inevitable results.* The claim was made that the line on ethicality as yet too closely resembled a Virginia rail-fence to constitute an accurate division and that a straight line through the 'zigzags' would lead to some curious results, not all in the favor of the organization journals. It was generally said that logic and ethicality would demand that these organizing journals, particularly if they carried on any crusade of reform, should act purely as 'organs' of the bodies they represented, and not as mediums for advertising, especially since such advertising must be purely for profit, not for support. Such action would relieve them from somewhat of the 'God and black beetle' attitude, enjoining 'Ye must not be as righteous as we were last year, or last week, or yesterday, or as we are today, but as we shall be tomorrow or next year, lest fall upon ye and rend ye!' The business agents of the organization journals are in no small way responsible for *much of the discontent, most of it as yet unexpressed.* So long as manufacturers who may be attacked tomorrow are solicited today for their exclusive patronage *because they cannot afford not to appear' in their columns,* and the independent journals are depreciated and sneered at by these commercial agents, *and their extinction prophesied,* no series of resolutions can inspire faith or beget harmony."

* * *

Editor Millican, of the St. Louis Medical Review, noted the incident as follows: "We are glad to have this disclaimer from the National Association; but as regards the State societies, we think they must speak for themselves; for some of them, through their official organs, have explicitly expressed a desire for the suppression of the independent medical journal," this latter declaration being based on the opening paragraph of his paper on the subject read at the Boston meeting of the American Medical Editors' Association, in which he stated that "The California State Journal of Medicine, in its issue of January, 1906, quoted approvingly a statement from the Journal of the Medical Society of New Jersey that 'the day of the privately owned weekly medical journal is passing away. Its place will be taken by the Journal of the American Medical Association and the various State journals.'"

Editor Millican might have added that similar opinions—or desires which have fathered the thought—have been expressed with regard to the monthlies, either by National Association weekly or State Association monthly journals, or the supporters of one or the other and both. Dr. Millican, however, concluded his paper—which is important enough to deserve the careful consideration of every "independent" medical publisher of the country—in the following pregnant terms:

"To permit the establishment of a monopoly in medical journalism will be to sound the knell of medical liberty. . . . When organization shall have stamped out all individualism, have suppressed all independent journalism, it will have rendered impossible for the minority all expression of dissent; then will it, perchance, be found that the guns mounted for the defense of the city have been seized and turned upon the city itself while men slept. . . . . There is no more dangerous state of mind

than that of the fanatic who thinks his mission is to reform the universe."

* * *

The estimate of the situation as exhibited in this paper by Dr. Millican subsequently evoked sympathic comment by the Medical Standard, Nashville Journal of Medicine and Surgery, and other well-known publications of the country, and in the August issue of the Atlanta Journal of Medicine and Surgery, Dr. T. M. McIntosh, of Thomasville, Ga., recited the following in the course of a communication to the editor on the subject of association affairs—organization and reorganization—in Georgia:

"Your editorial* recalls to mind an editorial in the Georgia Practitioner, published a short while, I think, before the Atlanta meeting, the gist of which was, as I remember it, that when reorganization became an accomplished fact, the Medical Association of Georgia would select some one of the medical journals, now published in Georgia, as the 'organ' of the Association, which would give the publication so chosen such prestige of circulation and influence that other journals could not continue to be published; and that he accepted it as a foregone conclusion that he would not be able to continue publication of his journal were it not chosen by the Association. His editorial was not in the spirit of criticism, but of willing and necessary acceptance of conditions. . . . . But the independent journals whose columns are open to all legitimate criticisms may not be able to survive the concerted onslaught of chartered monopolies, and may have their lives crushed out by the chariot wheels of the journalistic juggernaut of the A. M. A."

* * *

The Chicago Clinic and Pure Water Journal (Drs. Hatfield and Palmer) has the following, among other things, in an editorial expression on the subject in its issue of October last:

"Certain features of management of the A. M. A. have been introduced which are repugnant to many of the members. In trying to hush the expressions of legitimate dissatisfaction by stigmatizing all who criticize as being enemies of the organization and out of harmony with its meritorious works and aims, Dr. Simmons has made a grave mistake which reduces his calibre in the opinion of a great many men. The independent medical journals of the nation cannot be blackguarded into silence. To imply, as the Journal has done, that those journals which do not agree with its individual policies, are of necessity the hirelings of the manufacturers of proprietary medicines, is an insulting and arrant piece of effrontery. Many independent medical journals, owned by members of the American Medical Association and published for good and laudable purpose, can stand just as strong sunlight upon their dealings with their advertisers as can the Journal which Dr. Simmons temporarily controls—nor is this in any way a reflection upon that Journal. And yet many of these independent journals do not approve of all or nearly all of Dr. Simmon's methods."

* * *

In the December, 1906, issue of The Charlotte Medical Journal, Dr. E. C. Register clearly diagnosticates the case in the following trenchant fashion:

"Appearing in one of the best known independent medical publications, a recent article dealing with the problem of medical journalism enters a strong protest against the pernicious movement instituted, or at least threatened, by the great organizations of the profession to crush independent journals. Not only has this thing been hinted at, but loud boasts have been expressed in the pages of these *trust* organs that they will kill every independent medical journal, not in so many words, perhaps, but the scheme is perfectly transparent. . . . . The whole thing is wrong and unjust. The idea to crush the independent journal is nothing more than the time-worn unthinkable 'might makes right.'

The idea is to have one journal published by the national association and for each State society one journal, thus making all subservient to the control of the ring. Although not openly declared, it at least isn't denied that an effort is making gradually to bring the State and National societies into the same relationship now occupied by the State and county societies, thus giving the member entrance into all three when he joins his county organization. To become a member he must pay his dues annually or otherwise, and in these dues are included the subscription price of two medical publications, State and National. Manifestly this is unfair. If association journals were required to stand upon their own merits, having a definite and distinct subscription price independent of association dues, so that members might subscribe or not, as they choose, much of the element of unfairness would be eliminated from the competition. But to have medical journalism throttled by a trust, in whose soulless exitsence no thought is taken of the individual, places medical organization on a par with the corporations of commercial life and crushes out the very thing which is highest and grandest in medical science: honest endeavor to find the truth and speak it un-

* "Not to be Aligned," June, 1906.

trammeled."

* * *

Under the head of "Consistency," the Medical Record discussed the subject editorially as follows:

"A short time ago, after the sudden conversion of the editor of the Journal of the American Medical Association, this gentleman, in his endeavor to kill off the independent medical journals, established the rule that none should be regarded as "ethical" which admitted to its advertising pages any proprietary remedy of which he disapproved. A full list of these tabooed preparations has never, to our knowledge, been published, but several have been mentioned from time to time as especially worthy of condemnation. The Medical Record has been held up to public scorn because it has admitted some of them to its advertising pages, *and the physicians of the country have been urged to have nothing to do, either as contributors or subscribers, with any journals in which these preparations are advertised.* There is a most readable monthly journal published in Chicago, The Clinical Review, which, like all the independent medical journals of the country, as well as many of the official organs of the State societies, accepts the advertisements of a number of proprietary remedies anathematized by the Journal of the Association; in the current issue of the Review we have counted eleven of these preparations, among them the very particular *bete noir* of the editor of the Association Journal. There is nothing especially worthy of remark in this fact, but what is perhaps peculiar is that the list of collaborators of this "unethical" journal contains the names of several officers of the Association. Among them, to mention only three, we find M. L. Harris, secretary of the board of trustees, under whose direction the Journal of the American Medical Association is edited; Frank Billings, treasurer of the Association, and the vociferous foe of all nonpharmacopeial remedies; and William J. Mayo, president of the Association. We have no fault to find with this; the names of these gentlemen and of many others prominent in the Association are printed conspicuously on the front cover of The Clinical Review, and the journal is worthy of their support and approval. But some who do not know the true inwardness of this so-called reform may wonder at the inconsistency of those high in authority and may not be able to understand why one particular journal should be selected for reprobation for doing something which these officials of the Association, with what appears to be cynical indifference, publicly approve and sanction in the case of other journals. We say other journals advisedly, for The Clinical Review is not the only periodical, carrying "unethical" advertisements, which is edited and supported by officers of the Association."

Of incidental interest to the foregoing is the following by Dr. Frank Billings, the present treasurer of the A. M. A.:

"Many so-called medical journals are subsidized by medical manufacturers, and *one half of the medical journals of the country would be out of existence if it were not for the nostrum advertisements.*"

* * *

The Medical Herald (Dr. Charles Wood Fassett), St. Joseph, Mo., contributes as follows in December issue:

"We have refrained from saying very much pertaining to the independent medical journal because, in the first place, we do not believe that it needs any defense, since it speaks in no uncertain tones for itself; in the second place, it has an office to fulfill which will not apply to any other kind of a journal. It has been successful and we believe that it will continue to be so. Members of the profession have supported the independent medical journal on account of its worthiness, and they are to be trusted as the judges of what is good. Jealousy and selfishness will find an early grave, while the independent medical journal will continue to do meritorious work and have the support of the best members of the profession."

* * *

The Medical Council, Philadelphia, prints a discursive and interesting paper read by its editor at the Boston meeting of the American Medical Editors' Association, and in which—among other things—he voices prevailing opinion as follows:

"These medical organizations, State and National, have concluded that they no longer need nursing. They have suddenly taken it into their minds to start journals of their own *and have even openly threatened to turn around and eat up their former nurses.* This is the second class of medical journals—the National and the State medical society journals. For them we have no criticism and toward them no animosity. They fulfill a useful purpose and they have a right to a full and free opportunity for development. But in the light of *certain loudly expressed boasts of an intention to kill off every independent medical journal* your speaker thinks it not necessary to waste editorial space in giving them the hearty and generous encouragement he has done in the past. . . . .

"Now what are the practical conclusions in regard to this condition of affairs?

"In the first place, every society journal should be required to have a distinct sub-

scription price entirely independent of the members' dues. If not, then they should be required, according to law, to pay full third-class postage. If they are thus required to stand upon their merits as medical journals, so that members may subscribe or not, as they prefer, and thus the unfair element in the competition be eliminated, there would be nothing but a warm welcome for them in the ranks of medical journalism.

"But even the society journals may have elements which may affect their permanency. Already, I am sorry to say, they are quarreling among themselves. The editorships are too often regarded in the light of political plums, to be given to the favorite of one faction this year and to that of another next year, and to be scrambled and fought over always. He has no personal independence. The position of the journal this year under Editor Slashemupski may be entirely revoked under Brother Smoothemdownovitch. This I seriously regret, as I should like to see a brave, virile, consistent medical society press as a balance to the sometimes too individualistic tendencies of the independent press. Now, *when all these abuses are corrected* the independent medical journal will once more have a fair field and can more easily maintain its usefulness, dignity and true importance."

* * *

As a typical example of what the Medical Record describes as the endeavor of the editor of the Journal of the American Medical Association "to kill off the independent medical journals"—and which effort is regularly assisted in much more rabid fashion by his Coadjutor Jones of the California State Journal of Medicine, as well as by the editors of other official state organs under the lead of both—we reprint the following from the Journal of the American Medical Association of January 26, this year, page 338:

"Long Island Medical Journal.—Another journal has been launched, the Long Island Medical Journal, edited by Dr. Paul M. Pilcher, and, according to the editorial introduction, the property of the Associated Physicians of Long Island. It is to take the place of the Transactions, which have been published by the society for several years. The journal contains some excellent matter and, so far as the reading pages are concerned, is a credit to all connected with the enterprise. When we turn to the advertising pages, however, there is a difference. In the first place, it is very unusual for a new journal to secure 39 pages of advertising for its first issue. This shows enterprise. So far as quantity is concerned, the business management of the journal is to be congratulated, but when we come to the quality—well, it ought to be passed over in silence. The typical nostrums are here in all their glory. Antikamnia, with its 'Cheer thy spirit with this comfort' occupies its usual prominent position at top half of page. Then there are Vin Mariana, with its offer of a reward of $1,000 for any false statements concerning its purity; the mud poultice, Antiphlogistine, which is being bought over the counter daily by the public and used for everything, from a "blind" boil to pneumonia—thanks to the medical profession; Dahl's Dyspepsia Cake, which is a new one to us, but one that ought to take the public rapidly if the physicians will only help a little; Hydra-Casca Comp. for malnutrition, etc. Besides these, the following appear in the advertising pages of this journal, which is supposed to be published solely in the interests of the intelligent physicians of Long Island; Fellows' Hypophosphites; Angier's Petroleum Emulsion; Turck's Compound Emulsion; Chionia; Peacock's Bromides; Seng; Cactina Pilletts; Anedemin, that delightful nostrum from Winchester, Tenn.; Hydroleine; Hayden's Virburnum Compound; Pepto-Mangan (Gude); Glyco-Heroin; Gray's Glycerine Tonic; Celerina; Aletris Cordial; Sal. Hepatica; that thoroughly ethical proprietary that is advertised in practically every newspaper in the country, California Fig Syrup; Sanmetto; Glyco-thymoline; Listerine; Colchi Sal, et al. The intelligent members of the Associated Physicians of Long Island ought to be proud of the contents of the advertising pages of their new journal. The business management is certainly proud, for it would be able to supply physicians with this journal "free, gratis and for nothing," *and then make a profit.* Some zealous reformer is liable to make the remark that this journal must count on the nostrum men for its support rather than on its subscribers."

* * *

That—prior to the Portland meeting of the A. M. A. a couple of years ago—the Journal of the American Medical Association was supplied to large numbers of physicians "'free, gratis and for nothing' and *then made a profit*" out of what he now describes as "the nostrum men," rather than out of its subscribers, is history—as indelible as it is indisputable—that Dr. Simmons has become so completely "reformed" in the interval as now to be unable even to remember. And so does it appear that the "Holier than thou!" poseur, or attitudinarian, is a type that all the advanced civilization of the world—or any other cosmic force, however powerful, and however long

the world may endure—will ever be unable to improve (and we say "improve" advisedly) out of existence.

* * *

As an illustration of the other insidious way in which organization pressure is being brought to bear or forced upon the so-called "independent" medical journals of the country, we submit the following examples, the first being an abstract from the communication (previously quoted) from Dr. T. M. McIntosh, of Thomasville, Ga., to the editor of the Atlanta Journal-Record of Medicine and published in the August issue of the journal named:

"Kenneth W. Millican, M. D., of St. Louis, Medical Record, July 7, 1906, says: 'The California State Journal of Medicine, in its issue of January, 1906, quoted approvingly a statement from the Journal of Medical Society of New Jersey, that: The day of the privately owned medical journal is passing away. Its place will be taken by the Journal of the American Medical Association and the various State journals. Also: The pages of the official organ (meaning the Journal of the A. M. A.) will be controlled by those who control the organization itself, and since *the admitted purpose is that it shall be the only medium of communication between members of the profession*, there will be no opportunity for the malcontents, however numerous, to get together and organize in opposition to the Oligarchy.' Dr. Hicks, in a brochure which he sent out to the profession of Georgia before the Atlanta meeting, and in opposition to the plan of reorganization, *shows where the A. M. A. declined to allow Dr. H. B. Young of Burlington, Ohio to read a paper before that body which was already on the published program, because he refused to go into the State reorganization*

"In May of this year there was mentioned in a daily paper that a movement was being made by a number of physicians of the State to form a new State Medical Society. In the Atlanta Constitution of May 20, Dr. Lyle, of Augusta, Ga., is quoted at length as being 'bitterly opposed' to the formation of any new State Society, characterizing those who are favoring the movement as a 'few disgruntled politico-members' and declares that no other 'State society can be formed, because the present one is a chartered body.' Incidentally will say that Dr. Lyle would be sure to lose his case at law, and that the present constitution of the present State Association could be legally declared void.

"Dr. Jno. C. Olmsted, of Atlanta, Ga., in the Savannah News of May 25, also opposes the proposed new association, and also speaks of them as former members who are 'disgruntled.'

"I submit to the judgment of an impartial public and independent profession, if the above does not warrant the conclusion that the organized medical profession, national and state, does not only regard it as a heresy that any member of the profession should not regard as holy and perfect the present organization, but that it is treason, punishable by the frown of their disapproval, that they should dare to criticise in print the plans and the method used to carry out their purposes; and even threaten with legal restraint the privilege possessed by every free American citizen to form with their fellows any society or organization that is not in conflict with the well-being of the common-wealth."—American Medical Journalist.

"Ergoapiol" (Smith): Its Therapeutic Indications: with Clinical Notes.

We desire to call the attention of the medical profession to a new pharmaceutical product possessing valuable therapeutic virtues in many diseases peculiar to women. This remedy is known as "Ergoapiol" (Smith), and since its introduction to the profession it has rapidly gained favor with our best physicians. It is strictly ethical, manufactured from the purest drugs and advertised only to physicians.

It is the result of an original combination of the following remedies: Apiol, ergotin, oil of savin, and aloin, all of which are freed from toxic and deleterious substances. These agents are blended in such proportions as to overcome the powerful irritating qualities of each and raise the tonic properties of all. A glance at the therapeutical indications of these remedies singly will convince the most skeptical of the virtues of "Ergoapiol"—the result of their combination.

Since the days of Jaret, Homolle and Baillot, apiol has gradually grown in favor as a therapeutical agent, but until recently it had one decided drawback, that of containing deleterious and toxic impurities in combination. Recently, through the skill of the never-tiring pharmacist, these have been eliminated, and it can now be prescribed without fear of producing disagreeable symptoms, but with an assurance that its full therapeutical virtue will be realized. Even in its impure state apiol gained considerable reputation in the treatment of nephritis, dropsical effusions, amenorrhœa and dysmenorrhœa. Its emmenagogue properties have been greatly enhanced by the removal of all impurities. In small doses it now becomes a mild aromatic stomach tonic; it is also highly recommended in

membranous dysmenorrhœa. The therapeutical value of ergotin is too well known to call forth comment here. Combined as it is in "Ergoapiol," it becomes an excellent adjunct to apiol, and adds very materially to the efficiency of the finished product.

All students of medicine are aware that oil of savin is a powerful and valuable stimulant to the uterine system, and is one of the most potent emmenagogues known. It is also a powerful gastro-intestinal irritant, and therefore is seldom prescribed alone. But when combined with certain correctives, as it is in "Ergoapiol," it becomes a valuable addition to the drugs already named—apiol and ergotin.

Since the discovery of the methods of producing aloin from the different brands of aloes this drug has become very popular, and has taken the place of the crude drug to a considerable degree. Aloin enters into almost every emmenagogue pill and mixture. Its value as a therapeutical agent is so well known that it is not necessary for us to speak of it in detail; yet we desire to say that its addition to the drugs in question aids very materially in making "Ergoapiol" so valuable a combination. Being a mild stomach tonic, it aids in overcoming the irritable qualities of the savin; also acting as a hepatic stimulant, freeing the portal circulation and relieving the torpid condition of the lower bowel, it goes a great way toward relieving that condition so often present in diseases of women—pelvic engorgement. These qualities make it an ideal adjunct to the emmenagogues mentioned.

Our attention was called to "Ergoapiol" (Smith) through a reprint from a St. Louis journal. This reprint gave the names of remedies entering into the combination. We at once concluded that this product would be a useful one, and securing a supply we began prescribing whenever indicated.

The results were even greater than we had anticipated. From the beginning we have kept clinical notes of each case, some of which will be recorded in this article. "Ergoapial" is a mild, aromatic stomach tonic, anodyne, anti-spasmodic, and hepatic stimulant. It is also a laxative, an ideal emmanagogue in the full sense of the term, and exerts a decided tonic influence upon atonic conditions of the pelvic viscera. It is indicated to a greater or less extent in all forms of dysmenorrhœa, viz: atonic, congestive, obstructive and membranous. In true obstructive dysmenorrhœa due to actual stenosis of the uterine canal, to a sharp flexure of the organ, or to the valve-like action of a clot or a polyp it is seldom indicated because this form of organic dysmenorrhœa requires either surgical operations or mechanical means to effect a cure. However, good results may be expected from its use after such operations have failed to complete a cure or to relieve the suffering. It is even useful in the form where clots cause the trouble by their mechanical obstruction, and we have seen its administration cause the passage of a polyp in one patient. Good results may be expected from its use in that form of dysmenorrhœa known as membranous, due to an exfoliation of the endometrium in the form of a membrane. In amenorrhœa it is far superior in value to any remedy we have yet tried, if the cases are properly selected. Amenorrhœa due to taking cold at the menstrual period, or caused by shock, can be relieved with the remedy in question.

This remedy is occasionally beneficial in certain forms of metrorrhagia, after operations to remove fungoid or polypoid growths, or after curetting the uterus. It is a remedy of great value in menorrhagia, especially in that form due to faecal impaction, with torpidity of the liver in persons nearing the menopause. Where this trouble occurs in a plethoric and indolent subject the following plan of treatment will generally be all that is necessary: Begin three or four days before menstruation is due and give one brisk mercurial purge, then follow with "Ergoapiol," one capsule three times per day. If this plan is carried out for several months at each menstrual period, a cure will be the result.

"Ergoapiol" is especially indicated when disturbances of menstruation occur in feeble and anaemic women. It should be alternated with some form of iron in such cases.

There is a condition in which the patient's menses are regular as far as time is concerned, but the flow is very scant, exceedingly thick, tarry in color, with an offensive odor. The patient suffers pain and weight in the pelvis and back; is despondent; loses flesh and strength; and may or may not suffer from various reflex disturbances. In this state of affairs "Ergoapiol" will be found a sheet anchor.

Before recording the clinical notes gathered while prescribing the drug under consideration, we wish to call attention to one or two important things before leaving the subject. The first is that form of amenorrhœa that is brought about by constitutional disease, such as tuberculosis. In these conditions it is a common occurrence to have women insist on their physicians giving them something to bring on menstruation, thinking that its absence is the cause of their condition, when the fact is, the stopping of menses is only a wise provision of nature to prevent faster decline of vital

forces. The course to be pursued is to treat the constitutional disease, and when a cure of the latter has been accomplished, this form of amenorrhœa will generally take care of itself. However, when the patient's general health has been restored and the function fails to return, then "Ergoapiol" can be prescribed with good results. Our second subject is that of prescribing emmenagogues indiscriminately without regard to the cause of amenorrhœa. Women who know or suspect themselves to be pregnant, frequently consult a physician in the hope that, in the attempt to bring on menstruation, he will really succeed in causing abortion. Whoever, under such circumstances, prescribes "Ergoapiol" with the understood purpose of inducing the menstrual flow, is liable to have criminal charges brought against him in case abortion actually does take place, even as the result of something the woman has taken or done herself. Before prescribing "Ergoapiol" in amenorrhœa the physician should satisfy himself that pregnancy does not exist, and in case of doubt he should decline the management of the case, unless he can protect himself by securing some trustworthy consultant who will share the responsibility of the case.—C. W. Canan, B.S., M.D., Ph.D.

"Unifying the Profession" in the Interest of the Great Medical Journal Trust —Proselyting the Pathies.

It will be remembered that he who holds the destiny of the American medical profession in his hands (or thinks he does, or would if he could)—one Simmons—of The Octopus, is an apostate homeopath. He having abjured the faith of Hahnemanism, wants all others to do so—to keep him in countenance, as it were, like the fox who got his tail cut off, you know. To this end he has conceived the idea of a campaign and has launched a propaganda—a crusade of proselytism by paid emissaries—for that purpose, really, but ostensibly to "unify the profession," by coaxing or driving into the fold of the State and, *ergo*, of the National organization all of the physicians of America who, for reasons of their own, have held back, so far, and do not want to join. Pressure is to be applied to get them into the bull ring. Whether they want to or not; they have just got to, or be boycotted.

The States are swarming with these emissaries—paid by the Octopus. There are five of them now in Texas, and five in Missouri, so we are informed by one of them who blew into Austin recently and addressed the Travis County Medical Society, or, rather, nine members (of fifty-four) who went to hear him. It came out during his remarks that in addition to rounding up and checking off all the regulars eligible to membership but who are not of the elect, the orders are to round up the homeopaths and other "paths" as well, and get them to "jine in the good work" of unifying the profession to the end that McCormack's work may be perfected, and all power placed in the hands of the Octopus. When that glorious day shall come; when everything called "doctor" shall pay tribute to the Octopus and pour shekels into the coffer of the great J. A. M. A., where, oh, where will be the independent medical press—the "individually-owned" and "conducted-for-profit" medical journal? Like Bozarris who, "in his guarded tent was dreaming of the hour when Greece with knee in suppliance bent should tremble at his power," the autocrat of the Octopus is doubtless dreaming of the hour when the New York Medical Record, the New York Medical Journal, the Medical Times, the Charlotte, N. C., the New England Medical Journal, the Southern Practitioner, the Medical Sentinel, the Pacific, and the little "Red Back" and all the others shall turn up their toes to the daisies. If he can get the homeos to do as he did,—go back on their raisin', and all "jine in" to swell the chorus of Glory to the Highest; to the great Octopus, it will be a happy day for the Dictator, and a *cold* day for certain pugnacious Independents who have made it *hot* for him.

And the funny part of it is that county societies are falling in, or down—before this ukase; but the homeos, I learn, are laughing in their sleeves and saying "I smell a mice." The Dictator of this councillor district is right in for it. He says, "We are working under a new dispensation, doctor"—(to me and in the county society meeting). "Yes," I said, "it may be a new dispensation, but you can't 'dispense' with our Principles of Medical Ethics which makes them quacks, and not in 'honorable standing,' nor can you 'dispense' with the resolution adopted by the Texas State Medical Society at Dallas in 1896 declaring that 'this Association will expel from membership any one who consults with a homeopath.'" By the bye, Jenkins of Brown county, in arguing against the one board bill—a consolidating of regulars, homeos, *osteos*, and physiomeds, and eclectics, in the House last week, read this resolution, and denounced the combine in the language of William Lloyd Garrison, who said in the U. S. Senate that slavery was a "league with death and a covenant with hell." He made some of our fellows feel like three 10-cent pieces, i. e., 30 cents. McGregor also read an editorial ridiculing the osteopaths, in the State Association

journal of November, 1905, reproduced herewith, which sounded funny now that the Association has embraced them. Fancy an osteopath being licensed by "regulars" to treat infectious diseases by massage alone.

Now, county medical associations countenance and welcome emissaries from the Boss in control of the Octopus, and aid in the laudable cause of proselyting and bringing into the bosom of regular medicine these lost sheep. Oh, Consistency!

To my mind it is very clear that the purpose is to "unify the profession"—to mix fish, flesh, fowl and red herring into one heterogenous mass, or mess, for the support of the Octopus and its feeders, the State Association journals; a medical journal trust, to crush out independent action.

What will the editors of the 200 independent, personally-owned, run-for-profit journals do about it? They meet in June. We will see. Be ye *men*, and submit to the Boss tyranny that would crush you out?—Texas Medical Journal.

The Texas Sanitarium for Tuberculosis, located at Llano, Texas, takes pleasure in announcing that Dr. T. O. Maxwell, formerly superintendent of the Southwestern Insane Asylum at San Antonio, Texas, and for sixteen years first assistant physician to the State Insane Asylum at Austin, Texas, has purchased an interest in the Texas Sanitarium, Llano, Texas. He is now a member of the board of directors and has been elected Medical Director of that institution and has taken active charge of same. Dr. Maxwell is an experienced institutional man, and devoting his entire time and giving his personal attention to the successful management of this place insures its success beyond a doubt.

The Second International Congress of Physiotherapy will be held in Rome, Italy, on the 13th, 14th, 15th and 16th of October, 1907, under the Presidency of Hon. Prof. Guido Baccelli; Secretary, Prof. Carlo Colombo, Via Plinia, 1, Rome. The American Committee have been appointed with Dr. Francis B. Bishop, of Washington, D. C., as President; Dr. Wm. Benham Snow, 349 West 57th St., New York, Secretary; and Dr. Albert C. Geyser, New York, as Treasurer, with a special committee as follows: Dr. Fred H. Morse, Mechanotherapy; Dr. Margaret A. Cleaves, Phototheraphy; Dr. Wm. James Morton, Radium-therapy; Dr. Morris W. Brinkman, Rhythmotherapy; Dr. Curran Pope, Hydrotherapy; Dr. M. H. Kassabian, Radiography; Dr. George C. Johnston, Radiotherapy; Dr. Chas. Denison, Climatology; Dr. G. Betton Massey, Massive Cataphorisis; Dr. David E. Hogg, Thermotherapy; Dr. Edward C. Titus, Electrotherapy.

Treatment of Angiomata and Naevi.

Zimmern in speaking of the treatment of these blemishes says that electrolysis by the method of electropuncture is sometimes used. In nævi with visible telangiectasis this treatment at the end of a period sometimes long, sometimes short, produces very satisfactory esthetic results, according to Brocq. Negative monopolar electrolysis is used. Recently Bergonie has proposed to treat smooth vascular nævi by high-frequency currents. Brocq considers that in the case of prominent vascular tumors, that is, erectile tumors, electrolysis constitutes a wonderful treatment. Electrolysis in the treatment of angiomata is a definite operation, sure and applicable to all varieties of cavernous angiomata, small, grave, circumscribed, diffuse, or those invading neighboring tissues. The writer then describes with illustrations the technique of the treatment for these lesions.—Journal de Medicine de Paris.

The Typhoid Bacillus in the Urine.

Napier and Buchanan write that Hueppe has the credit of having first directed attention to the occasional appearance of the typhoid bacillus in the urine, just twenty years ago. The methods for the identification of the organism were at that time very far from adequate, yet the correctness of this discovery, and of the work of a number of men who followed Hueppe on the same lines, cannot, from the point of view of the present day, be doubted. In 1898 Petruschky advanced our knowledge considerably by showing the enormous number of bacilli shed in the urine, and their long continuance in the urine during convalescence. It is not a little remarkable that a complication of typhoid apparently permitting of such easy proof was only made known so recently. Before a few years ago the danger of the spread of infection by the urine was scarcely taken into consideration. It is now fairly well established that the bacilli appear in the urine in about one-fourth to one-third of all the cases. Their appearance in the urine is at earliest towards the end of the second week; usually later, and most frequently not till convalescence. The bacilli may be so few in number in the urine as to produce no evident change in its physical characters. As a rule, however, they appear so suddenly and in such numbers as to render the urine cloudy, The number of typhoid bacilli excreted in this way is enormous. Petruschky found more than 100 million per c.c.

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in the treatment of many chronic diseases often depend on the judicious use of effective tonic remedies.

Gray's Glycerine Tonic Comp.

can be relied upon to increase the appetite, improve the digestive and assimilative functions, and give to weakened, debilitated patients the very support and strength they most urgently need.

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"Most important addition to medicine since the introduction of cocaine," writes a prescriber.

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Incipient Tuberculosis, Chronic Coughs, Pneumonia, Typhoid Fever.

A soluble form of guaiacol—odorless; non-irritating; readily assimilated.

Both creosote and guaiacol are prone to disturb digestion and impair the appetite. Thiocol, on the contrary, stimulates the appetite and does not irritate the gastro-intestinal tract.

Procurable in 3 forms: Powder; 5-grn. Tablets; and Syr. Thiocol Roche.

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Odorless Wound Antiseptic.

Possesses all the good qualities of iodoform without its disagreeable diffusive, persistent odor. Is three times as bulky.

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Ch

Their appearance may coincide with the presence of some albumen and even a slight amount of blood. On the other hand, the shedding of the bacilli may be attended with very severe kidney disturbance, marked by profuse and long continued hæmorrhage. The bladder in the majority of cases remains unaffected, and, indeed, the bacilli may continue to be shed in enormous numbers without giving rise to any subjective discomfort. This lightness of the affection causes the condition to be overlooked, and in this way the spread of the disease is facilitated.—The Glasgow Medical Journal.

Winslow Anderson Scores California State Journal.

San Francisco is in the throes of a "clonic" spasm of purification. When the purifiers get over their hysteria and have cured the "tic doloroux" and "torticollis" in their brethren, we shall look for the new Jerusalem. So strong has this "purification" sentiment taken hold of some of the would-be white lambs of the medical profession as to open up an ancient system of persecution against one of the medical schools in the city. This "brigand" hold-up method of yellow journalism seems bad enough in commercial affairs, but when a self-constituted medical trust tries to bully and browbeat an independent school of medicine, it is time to call a halt. It is time to haul up the pusillanimous slime slingers with a short turn.—American Medical Journalist.

Retro-Bulbar Neuritis After Burns.

Among the rarer sequelæ of extensive burns of the skin may be mentioned the occurrence of retro-bulbar neuritis. This was known twenty years ago, for it was fully described by Mooren at that time, who thought it not improbable that neuritis was more common than one is apt to suppose. However this may be, the number of cases recorded is certainly very few, and when they have been discribed, the type of affection has not been so often the ordinary form of retro-bulbar neuritis as a neuro-retinitis with more or less abundance hæmorrhages in the retina. A case of this nature has recently been published by Lindenmeyer; it occurred in the person of a young healthy workman who received extensive burns of the first and second degree on the backs of the hands and forearms, and on the face. Healing ran a normal course; there was no rise of temperature after the first week, there were no cerebral symptoms, no albumen in the urine: the stools contained no blood. The burns were dressed with bismuth at first, and later with boracic acid; iodoform was not used. About three weeks after the accident, the patient complained of his eyes being stiff or pained when he moved them, and of the sight not being good; this symptom increased, until after another three weeks or so he was only just able to distinguish large objects. Lindenmeyer found him to have an absolute central scotoma, but without contraction of the fields; there was a slight degree of neuritis and a few hæmorrhages in the retina, near the discs. Treatment, unfortunately, did not prove very successful, and vision remained very poor indeed. Support is lent to the theory that perhaps some toxins are produced in burnt tissue whose action may set up this form of defect of vision by the fact, noted by Wiedenfeld in 1902, that if one introduces pieces of burnt skin into the peritoneal cavity of an animal, peritonitis and death invariably followed. The odd thing, if this theory is true, is that it is comparatively so rare to find examples of such severe forms of toxic inflammation when burns occur so frequently. But this is a difficulty which meets one at every turn in medicine.—Klin. Monatsbl. f. Augenh.

Aberrant Goitre.

Reynier reports two observations of tumors, the one located under the angle of the jaw in the submaxillary region; the other adherent to the external surface of the vessels over the sternomastoid and which projected into the subclavicular triangle. Careful histological examination of these cases left no doubt as to the thyroid origin of these tumors. It showed conclusively that the thyroid origin of certain branchial tumors can no longer be denied; and it also supported certain recent embryological data in the explanation of their development. According to Delbet, it is an important fact that epitheliomata of the neck develop from epithelial debris which have existed since the embryonic period. Histological variation matters little since it is now known how closely connected are the branchial clefts, the lateral thyroid invaginations.—Revue de Chirugie.

Nicolas Senn says it would be a dangerous precedent to establish a third term policy, even with such an efficient President as Mr. Roosevelt. And yet the secretary-editorship of the A. M. A.—J. A. M. A. seems to be a permanency for its present annually re-elected incumbent. Will Dr. Senn kindly inform us what—in principle—is the difference?—American Medical Journalist.

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Scopolamine in Surgery and in Obstetrics

Albert Laurendeau in a recent work on this subject advises a dose of 1.50 grains of the hydrobromate of scopolamine combined with 1-5 of a grain of morphine to be given to adults by means of hypodermic injections in the lower extremities. This injection may be given if necessary three times in all at hour and a half intervals. This medication is not meant to replace chloroform absolutely. The toxic co-efficient of scopolamine-morphine is less than that of chloroform. Its manipulation is more easy, and its method of administration is more definite. It may be employed in cases of tuberculosis, of heart lesion, and of cachexia. These drugs are advised in the case of patients who are subject to vomiting, in cases in which the intervention is of long duration, in cases in which surgical intervention is followed by severe pain, in first aid work, and in obstetrics. One dose suffices to abolish all consciousness and memory for several hours.—Le Journal de Medicine et de Chirurgie.

The Pomeroy Company are making a specially designed Abdominal Corset that meets the demand of physicians for one that will successfully support displaced organs and improve the figure along the lines that are in keeping with the latest mode. There is a great demand for an article that will successfully support prolapsed organs, and at the same time, have no objectionable features to the patient.

The Health Corset fulfils these requirements to such an extent that many physicians are recommending it to their women patients not only as an article of support, but also because of its giving satisfaction to them in furnishing a fashionable figure without harmful pressure. In the present day, most women realize that a well fitting corset adds more to their appearance than the most expensive outer clothing because that furnishes the ground work for the fitting of other garments. Many women are also realizing that even for the sake of style it does not pay to wear garments that restrict the diaphragm or make them uncomfortable in other ways. That the Health Corset furnishes this style without any of the above annoyances, is the cause of its popularity.

A recent and very plausible theory ascribes rheumatism:-"to toxines formed in the alimentary canal as the result of disordered digestive functions, producing disturbances in metabolism and alterating in the tissures. The body suffering these eflects of autointoxication has its vital resistance lowed and is therefore subject to microbic invasion."

Tongaline from the character of its composition has an antitoxic effect on these microbes and by its stimulating action on the liver, the bowels, the kidneys and the pores, it eliminates promptly and thoroughly the poisonous germs which are the cause of rheumatism, neuralgia, grippe. gout, nervous headache, sciatica, lumbago, tonsilitis and heavy colds,

The physician who employs Peacock's Bromides can depend upon best possible bromide results. This preparation never varies in strength and eminent American and English analytical chemists have testified to the extra purity of the salts entering its composition. It has long been and will continue to be an important consideration to neurologists and general practitioneers who wish to resort to a continued bromide treatment.

To guard the functions of the heart is characteristis of the therapeutic action of Cactina Pillets. This conclusion reached by Myers more than fifteen years ago has been fully sustained by clinical experience- According to Myers, its power to increase the musculomotor energy of the heart, elevating the arterial tention and increasing the height and force of the pulse wave' makes it a cardiac tonic stimulant of importance in the treatment of irregular and feeble heart action.

Deranged Uterine Function.

It is safe to say that to the average physician, who is confronted almost daily with the ordinary cases of suppressed and deranged uterine function, no other class of cases is so uniformly disappointing in results and yields so sparing a return for the care and time devoted to their conduct.

Patients suffering from disorders of this nature are usually drawn from the middle walk of life, and, by reason of the pressure of household duties or the performance of the daily tasks incidental to their vocation, are entirely unable, in the slightest degree, to assist, by proper rest or procedure, the action of the administered remedy.

Many of these patients, too, suffer in silence for months, and even when forced by the extremity of their sufferings to the physician, shrink from relating a complete history of their condition and adsolutely refuse to submit to an examination. Authoritative medical teaching and experience unite in forcing upon the attendant a most pessimistic view of his efforts in behalf of these sufferers under such conditions.

It is in this class of practice, where almost everything depends upon the remedy alone, that a peculiarly aggravating conditions of affairs exists. A very limited list of remedies of demonstrated value is presented for selection, and I believe I am not wide of the mark in saying that, in the hands of most practitioners, no remedy or combination of remedies hitherto in general use has been productive of anything but disappointment.

Some time ago my attention was drawn to Ergoapiol (Smith) as a combination of value in the treatment of a great variety of uterine disorders. Its exhibition in several cases in my hands yielded such happy results that I have used it repeatedly in a considerable variety of conditions, and with such uniformly good results that I am confirmed in the opinion that its introduction to the profession marks an era in modern Therapeutics. In the treatment of irregular menstruation and attendant conditions I have found it superior to any other emmenagogue with which I am familiar, in the following particulars:

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3. It is absolutely innocuous.
4. It occasions no unpleasant after-effects.
5. It is convenient to dispense and administer.

The following clinical notes will afford a general idea of its action in a variety of cases:

Case 1. Mrs. —— came to me presenting the following symptoms incident to a delayed menstruation: Persistent headache of a neuralgic character; dull, aching pain in limbs and lumbar region; cramp-like pains in abdomen, and considerable nausea. The menstrual period was overdue seven days, but as yet there was no appearance of flow. Her periods had always been occasions of intense suffering, but had never before been delayed. I began the use of Ergoapiol (Smith), with some misgiving owing to the irritable condition of the stomach. One capsule every three hours was administered without any aggravation of the gastric distress. In twenty hours a normal menstruation was well under way; the flow was slightly increased over the observed on former occasions. The pains had subsided. Ergoapiol (Smith) was administered, one capsule three times a day, during the menstrual period, which terminated in five days. The patient was instructed to return for a quantity of the remedy several days before the next menstrual period. She did so, and following directions, took one capsule three times a day for three days before expected menstrution. She subsequently reported that during the period—lasting five days—there had been practically no pain, and the amount of flow was, as far as she could judge, normal.

Case 2. Miss——, aged thirty, has been a sufferer for years with dysmenorrhoea. For about three years had suffered with leucorrhoea, particularly annoying after each menstrual period. Had undergone treatment at different times for the leucorrhoea and dysmenorrhoea, but had never experienced permanent benefit. She had been obliged to spend the couple of days of each period in bed. She consulted me about one week before her period. Examination revealed a purulent discharge oozing from os cervix and a rather large uterus. There was no displacement. She was put upon Ergoapiol (Smith), one capsule three times a day. The onset occurred one day earlier than expected and was attended with considerable pain. The patient was, however, able to attend to her usual duties, a state of affairs such as had not been experienced for some years. At the onset of the flow Ergoapiol (Smith) was administered, one capsule every two hours. The effect was astonishing. In eight hours the pains had well-nigh supsided and there was practically no discomfort, except some pain in back.

Case 3. Miss——, aged twenty-one, had suffered for two years with irregular and painful menstruation. Had commenced to menstruate when sixteen, menses being very scanty, but regular and accompanied with but slight degree of suffering. Was never of a very robust bhysique, but in the main healthy. When about nineteen, considerable nervous trouble was inaugurated by grieving over a great bereavement, and the menses became more painful. The anguish became such a horror to her that she frequently resorted to morphine, partly to allay pain and partly to procure sleep. Fortunately she had not, as yet, contracted the habit, but the tendency was undoubtedly in that direction. When first consulted by her, examination was not granted. Menses appearing shortly afterward, was called upon to afford relief. Flow was very scanty and clotted. There were sleeplessness, terrific headache, pain in back, constipation, etc. Ergoapiol (Smith) was administered, one capsule every three hours. Flow was considerably increased, there was a gradual lessening of all the suffering, and almost complete relief in twelve hours. This young woman has been placed upon Ergoapiol (Smith), one capsule twice daily for one week preceding appearance of menses, and has passed through several periods with little suffering. An examination recently showed a marked retroversion and every sensitive cervix. A properly applied supporter will doubtless work considerable benefit in her case, but it cannot be disputed that the comparatively easy menstruations occuring recently, in spite of the displacement, were due entirely to Ergoapiol.

Case 4. Miss——, aged eighteen, had always been regular in menstruating. Could get no history of any previous disorder within patient's knowledge. Contracted a heavy cold about time of menstrual epoch, and was much alarmed by non-appearance of flow. Discomfort was not marked. Ergoapiol (Smith), one capsule three times a day, was prescribed. Reported later that flow was established in twenty-four hours after treatment was commenced. The delay in this case was about four days.

Case 5. Mrs. ——, consulted me, giving the following history: Three months previously had had a profuse uterine hemorrhage occurring about the time of menstrual period. As she had for a number of years menstruated only at intervals of about six weeks, the fact that menstruation has been suspended for six weeks before the date of trouble was not especially significant. The hemorrhage, which was at no time alarming, had continued for several days. Since that time there had been an almost constant wasting and at times a considerable flow. Her condition was practically invalid. Examination revealed a gaping os, a cervix exceedingly tender and abraded, and a large uterus. Before resorting to curettement it seemed advisable to try other measures. Ergoapiol (Smith), one capsule every three hours, was prescribed. In about twenty-four hours there was a decided increase in the discharge, which consisted of clots and considerable debris. There were some pains of a cramp-like nature. The discharge began to grow less in about four days and ceased entirely in one week. There was a marked improvement in general condition. Local treatment entirely removed the tenderness and abraded condition of cervix. Ergoapiol (Smith) was administered several days before next menstrual period and resulted in a very satisfactory period. In this case it appears to me the remedy saved the patient the ordeal of curettement, acting as a prompt uterine stimulant. Her condition locally and generally has since steadily improved.—James A. Black, M. D., Morganza, Pa.

The Opsonic Index in Relation to Tuberculous Peritonitis.

Arthur H. White calls attention to the surgical cures of certain cases of tuberculous peritonitis by the flushing of the peritoneal cavity. In relation to this well known fact the author speaks of the recent work of Wright, who has shown that there is present in the blood a protective substance hitherto unknown, which he calls opsonin. To the presence of this substance phagocytosis is largely due. This investigator has also shown that in cases of local tuberculosis the blood contains less opsonin than that of normal individuals. The opsonic index may be raised by the inoculation of a tubercle vaccine. He has proved that in raising the opsonic index and keeping it steadily at the normal, or higher than normal by means of inoculation, ultimate complete cure of local tuberculosis will result. The writer believes that operations should still be performed in these cases, because they furnish the only or the best means of getting rid of the fluid poor in opsonin and of promoting the necessary exchange which occurs between the blood and the locally infected area. It will be well also to raise the opsonic index before operation by inoculation. The after-treatment should include blood examinations from time to time to determine the degree of the opsonic index.—The Dublin Journal of Medical Science.

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The Treatment of Pneumonia with Metallic Ferments.

The treatment with serum therapy and other specific agents have been found alike unsatisfactory, and, as a rule, the practitioner called in to treat pneumonia adopts an expectant course of treatment, and devotes himself to the relief of symptoms. According to Robin, the study of the general metabolic changes, and especially the respiratory changes, which occur at the crisis enables us to follow in part the natural course which the body adopts to defend itself against the toxin. These changes are fairly constant. At or immediately preceding the crisis the organism discharges large quantities of uric acid and urea. At the same time the coefficient of utilized nitrogen rises. These urinary phenomena are associated with respiratory changes which show that the total quantity of oxygen used is lessened at the crisis. Now. the effects of injecting metallic ferments closely resembles this natural sequence of events in the critical period of pneumonia. They, too, increase the output of nitrogen, urea, and uric acid, while the ratio of utilized nitrogen rises coincident with a diminution in the amount of oxygen used up. Robin therefore thinks that, as these metalic substances act along the same lines as the natural resisting power of the body, they may be utilized to supplement the natural course of events. They evidently do not exert any influence upon the seat of the disease, but merely upon the toxin. By aiding the efforts of the tissues. they lead to the more rapid removal of the toxic symptoms.

The use of these metallic substances constitutes only one of the methods of treatment, and their use should be associated with the other recognised methods of symptomatic treatment, such as venesection in suitable cases, the use of calomel, alcohol, quinine, and blistering. The metallic ferments are all similar in action. it is immaterial whether a compound of silver, gold, or manganese be used. Whatever preparation is selected, it should be injected deeply into the subcutaneous tissue round the lesion. In very severe cases it may be injected directly into a vein. The injection should be commenced on the fourth day and repeated every second day. The immediate effect is a transitory rise of temperature, which develops within an hour, and continues for six to ten hours' after which the temperature falls to a point consideably below the previous level. In addition to the urinary changes already mentioned, the drugs intensify any albuminuria present, and may even determine the onset of albuminuria; but in all these cases the albumin ceases with with the passing of the disease. The blood pressure is slightly raised. The results obtained by Robin are fairly satisfactory. Out of fifty-three cases, of which twenty-six were of a severe type, only six died; while in 63 per cent. the crisis occurred before the eight day. The treatment was much less successful in cases of secondary bronchopneumonia.—Bull. Acad. de med-, Paris,

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Iodine, and Some of its Uses in Surgical Work.—John Egerton Cannaday, M. D., in American Medicine, says that iodine is an exceedingly active substance chemically, and belongs to the halogen group. It possesses great affinities for many substances, and its exact use and sphere of action in the body are unknown. Its enters largely into the composition of sea food and animals subsisting on this food contain their share of this evanescent substance. It makes the circuit of the body circulation in a short time and is eliminated in the saliva, urine, and feces.

Senn in his recent trip among the Esquimaux noted that iodine is liberally incorporated in the food of these people. He observed the remarkable absence of tumors of all sorts, the exceedingly benign course of syphilis, the absence of enlarged tonsils, lymphatic glands, and goiter. He attributes this immunity to their use of iodized food. Sternberg, Senn, Koch, Schill, Fisher, Behring, Tavel, and more recently Kinnaman, have emphasized the value of iodine as an antiseptic. It is certainly the most powerful as well as the least harmful germicide we possess.

Kinnaman has performed an unusually elaborate and careful series of experiments with a view to the determination of the actual antiseptic value of the drug. He made use of a solution containing iodine 2.5 gm., sodium iodide 5.5 gm., sterile water 250 c.c., making a 1-100 solution. A 1-100 solution of mercuric chloride acting on a culture of streptococcus pyogenes for 15 minutes showed a good deal of inhibitory power for the first day but allowed a good growth of streptococci to appear. An exposure of 30 minutes, however, gave no growth. The superiority of iodine is readily evidenced by the fact that a comparatively weak solution (0.2 per cent.) killed the streptococcus after two minutes' exposure. To iodine the staphylococcus is far more resistant than is the streptococcus. While it takes a 1-100 solution five minutes to kill the former, a 1-500 solution is fatal to the latter in two minutes. Dr. Kinnaman's conclusions are that, in a solution of iodine varying from 0.2 to ⅛ per cent. we have a germicidal agency of marked potency. Its bactericidal power is far superior to mercuric chloride, the acknowledged leader of all antiseptics.

The author reports a case of multiple tuberculous abscesses of the muscles of the chest and back treated by repeated injections of iodoform in olive oil, in which the results were most gratifying. He calls attention to the fact that the injection of the emulsion into the joint is naturally followed by a rise of temperature which may last for several days.

The iodoform gauze treatment of puerperal sepsis introduced by the late Doctor Pryor, of New York, is commented on most favorably. The method is considered to be unassailable from a deductive as well as a resultant point of view. Pryor packed the uterus and the retro-uterine space with iodoform gauze after thorough curetting and irrigation. The iodoform with filling of von Mosetigo-Moorhoof has been found to be a most valuable adjunct in the treatment of circumscribed chronic osteomyelitis.

Aumond and Bonnaire use the following formula for an irrigating solution: Iodine 3 gm.; potassium iodide 6 gm.; water 1,000 gm. They make use of the pure tincture as a local application prior to the curettment as a means of partially sterilizing the inside of the uterus. Many of the old time gynecologists were in the habit of making an application of the plain tincture to the inside of the uterus after curettment.

Iodine in weak solution as an irrigation is of much value in the treatment of suppurative conditions as suppurative arthritis, abscess, empyema, etc. The author has several times used a one per cent. solution in the treatment of suppurative sinuses and wounds with the result that there was a prompt disappearance of pus and an abundant formation of healthy granulation tissue.

It must not be forgotten that, although iodine is the most harmless of antiseptics, it and its compound iodoform are active agents, and as such should be used with caution. They are under circumstances powerfully toxic. It is after injection into serous cavities that the most serious results are seen. The pyogenic membrane lining the tuberculous or pus cavity seems to possess the power of immunity to a marked degree. The old and enfeebled patient will be much more susceptible to the poisonous action than the more robust. It is a well known fact that an individual suffering from septic infection will tolerate much more iodine without the symptoms of poisoning than one under normal conditions. Rarely there are found persons having so marked an iodiosyncrasy for iodoform that it will act as a poison when exhibited in the usual manner in small amounts.

The writer uses a one-half of one per cent. alcoholic solution for purposes of hand disinfection preliminary to operative work in all cases in which rubber gloves are not worn. The same solution is made use of in the preparation of the site of the operation incision. Rubber gloves are worn as a routine measure in operative work, but in a certain number of these cases gloves are undesirable, again in an occasional septic case a glove may be punctured or torn and

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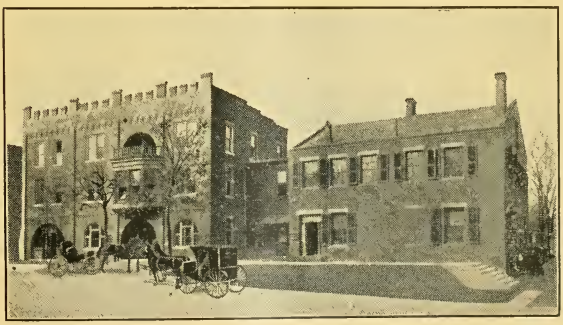

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the operator feels the need of some reliable antiseptic for his own sake as well as for the protection of his future patients. The use of this solution simplifies the technic and saves time. The method practiced is as follows: First, thorough scrubbing with nail brush, green soap, and running hot water, going over the hands in a systematic and methodical manner, taking each part in its turn, and always following the same order so as to skip no part. Particular attention is paid to the nail folds, subungual spaces, and the skin between the fingers. Short clipped nails should be cleaned with an orangewood stick, the hands scrubbed again, washing off the soap in running hot water. Remove the residue of the soap with 70 per cent. solution of alcohol, immerse in iodine solution for five minutes, rinse in sterile water. The light brown stain can be removed by washing in dilute ammonia water after operations, or if left alone it will soon disappear.

The results clinically of this method have been superb. In a long series of cases no infection attributable to the hands has occurred.

In conclusion the author states his belief that iodine constitutes a near approach to a perfect antiseptic in that it is non-toxic in effective strength, being one-fourth as poisonous as mercuric chloride, though many times more valuable as a germicide. It does not coagulate albumin or form inert compounds with the tissues. It possesses great penetrating power, is easily prepared and is stable.

A solution of iodine is the most practicable chemical agent we have for the sterilization of the skin.

Leucoderma.—Evans, in The London Medical Lancet, states that loss of pigment from the skin may occur from many causes; it may follow an injury or an inflammation; it may occur in the anæsthetic variety of leprosy; it may result from the retrocession of a psoriatic patch; and it is not rare as the sequela of a secondary syphilitic eruption. All these are secondary; the writer limits his remarks to leucoderma, vitiligo, or primary loss of pigmentation of the skin. The disease may occur at any age, but is most frequently seen between the ages of twenty and forty years. It has been observed as early as the fourth year, and also to commence in advanced old age. It is not very rare, but is probably even more frequent than is generally supposed. The two sexes are fairly equally affected. The disease is more commonly seen in the colored races; this is partly to be ascribed to its being more readily recognizable, and partly to the fact that such people live in warm climates. The author thinks that tropical climates have a definite ætiological importance. Leucoderma begins by the appearance of small round spots of a clear white. These steadily increase in size, and coalesce to form large white patches. They have a very definite, clearly defined margin, always convex towards the unaffected skin. This convexity shows that the white area is the abnormal portion. The whiteness is absolutely dull, contrasting unpleasantly with the surrounding pigmented area. Any hairs on the affected part nearly always lose their coloring matter, and occasionally they fall out. The surface is absolutely unaltered in level, and its sensibility is never affected in the slightest degree. The change is merely a change of color and nothing more. Symmetry is an important character of leucoderma; sometimes it amounts to little more than a tendency, but often the symmetrical distribution is extremely well marked. Occasionally the depigmentation is so extensive that a very dark person, such as a negro, may become almost white. He has been struck by the large proportion of cases of leucoderma in which there have been morbid affections of the alimentary canal, especially ulceration. Many of the cases seen in England have lived in tropical climates and have suffered from dysentery or typhoid fever. The frequency of the connection leads to the suggestion that the cause of the skin lesion is to be sought in the alimentary canal, and that the cause is in all probability a toxine which is absorbed from the intestine, carried by the portal blood stream or by the mesenteric lymphatics into the general circulation when it produces its local effect upon the skin. The chief localizing features are mechanical or chemical, trauma, and light. Pressure probably also plays some part. The actual mechanism of depigmentation is probably the vital action of peripatetic cells. The toxine from the diseased alimentary canal stimulates macrophages to attack the pigment of the skin, the locality being determined by trauma and light. The pigment removed is carried downward into the derma, and also outwards in a centrifugal direction; this last would explain the increased pigmentation seen at the margin. Seldom indeed is it that the peccant macrophages can be induced to retrace their steps and to deposit once more the pigment where it should be. He carefully reviews the various theories which hold the condition to be of nervous origin, and concludes that in no way does the nervous system have any act or part in the localization of the patches of leucoderma.

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The Crusade against Cancer of the Uterus.—Milligan (Jour. of Obst. of Brit. Emp.). Winter, of Koenigsberg, according to the author, must be regarded as the pioneer in this movement. In 1891 he published a paper dealing with the early diagnosis of cancer. Since this time numerous articles have appeared from his pen dealing with the question of cancer in all its aspects. The most important contributions in this problem are his monograph on the crusade against uterine cancer and his paper on the result of this propaganda. In the latter he describes how he issued in December, 1902,

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to every doctor in East Prussia, a pamphlet, urging them, among other things, to make an internal examination in all suspicious cases. To midwives he sent a leaflet pointing out the symptoms of uterine cancer, and urging them to send on to their doctors all patients who presented any such symptoms. In addition to this he published in the most popular lay newspapers, "A Word of Advice to Womankind," in which the significance of irregular hemorrhages, etc., was insisted upon. The test of the effect of his appeal he based upon two points, viz., (1) the time which elapsed between the patient's first knowledge of cancer symptoms and her seeking medical advice; (2) the time which elapsed from the moment advice was given to the date when it was acted upon. On both these points he found a very marked improvement. The percentage of cases suitable for operation as the result of this appeal had risen to 74 per cent. in 1903, against 62 per cent. in 1902. Similar efforts have been made in Germany also by Duhrssen. The Austrian Cancer Committee prepared and distributed to all medical practitioners in Austria a pamphlet, entitled "*Principiis obsta*" No practical steps in this direction so far have been taken in England. This, in spite of the fact that Lewers in a preliminary note to his book on "Cancer of the Uterus" (1902) suggests that something of a practical nature might be done in the way of making women themselves familiar with the early symptoms of uterine cancer. In America active steps were first taken at the Meeting of the International Congress of Arts and Sciences, held in St. Louis, 1904. Nothing has been done so far in France. A great deal of activity has been shown quite recently in Switzerland in promoting the crusade against uterine cancer. Three leaflets, directed respectively to physicians, midwives and the lay public have been issued by the obstetrical and gynecological society of that country. The leaflet addressed to the public was sent to all the daily newspapers of Switzerland, in some of which it was published. In Sweden a commission has been appointed to begin active work in this crusade.

Chorea and Rheumatism.—Duckworth (British Medical Journal) states his belief that chorea is a variety of rheumatism which more particularly involves the brain, and states that the evidence in favor of the rheumatic nature of chorea is stronger if possible from the clinical than from the bacteriologic side. Chorea is more frequently seen in rheumatic families. It may precede by months or years an attack of acute rheumatism, or may supervene during an attack or may occur subsequent to such attack with or without overt rheumatic complications. His statistics show a family or personal history of rheumatism in eighty-five per cent. of cases in chorea and believes this to be even smaller than the true status. Chorea may be the sole manifestation of an attack of rheumatism and is thus a true cerebral rheumatism, and in first attacks of chorea there is not seldom to be observed a distinct degree of cardiac dilatation, sometimes independent of pyrexia, pericarditis, or appreciable endocarditis.

Migraine and Epilepsy.—Gowers in the British Medical Journal says that migraine comes into the borderland of epilepsy in many ways. The two affections may alternate in the same patient, or sometimes epileptic attacks and headaches continue together, but in such cases the latter is seldom definitely hemicranial, unless the epilepsy is only the minor form. The most frequent prodroma of migraine is visual, and is so characteristic as not to lead to confusion with epilepsy. The most frequent form is that of a small star near the fixing point; it enlarges on one side, its rays expanding into zigzags, often colored—the "fortification spectrum"—within which vision is dimmed. It lasts a quarter of an hour or more, and as it ceases the headache comes on, usually on the opposite side of the head. Another premonitory symptom is a sensation of tingling ("pins and needles"), which is felt in the hand and slowly ascends the arm as a zone, leaving behind it numbness and diminished sensibility. This also lasts a quarter of an hour and is followed by headache on the opposite side of the head. It represents the aura of epileptiform fits, which are caused by organic disease of the cortex, tumor, or an old stationary lesion in "organic epilepsy." But the aura of epilepsy occupies only a few seconds. When the right arm is affected there may be some degree of transient aphasia in both affections. The sensory disturbance in migraine may affect both the hands, but never in Jacksonian epilepsy. The aura of migraine never begins in the foot. It must be remembered that the sensory prodroma of migraine may occur alone without succeeding headache to emphasize its nature, and be erroneously taken for minor epilepsy. Vertigo may be met with as a premonitory symptom of headache, and give rise to confusion. Lateral hæmianopia, which often accompanies migraine, is unknown as the aura of an epileptic attack. The pain of migraine is accompanied by oversensitiveness to sensory impressions; it is increased by light and sounds, so that darkness and silence are needful for the endurance of the

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suffering. A very rare and merciful effect of the pain is sleep; it makes the diagnosis between migraine and epilepsy very difficult. The intolerance of sensory impressions caused by the pain may pass into a state of stupor, during which the pain is apparently felt, but is not afterwards remembered.

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The condition is often attended by quiet delirium.

He holds that while there is some relation between migraine and epilepsy, yet the evidence is very slight. All that can be said is that in each malady a state of nervous tension seems slowly to develop, which is at last relieved by a violent functional disturbance. The differences between the two conditions are definite and distinctive. The brief warning of epilepsy is not met with before migraine; severe pain of long duration does not follow epilepsy, nor is it one-sided. Vomiting in epilepsy occurs soon after the fit, and not after the headache has lasted some hours, as in migraine. Bromide, so often efficient in epilepsy, has much less value in migraine, in which nitroglycerine is of service, especially if combined with strychnia.

Treatment of Tuberculous Abscesses. —Starr (Brit. Med. Jour.) says that abscesses which follow tuberculous disease of the bone add no longer to the local or general condition, so long as they remain quiescent, as closed sacs, and do not become infected. A considerable proportion of these abscesses will disappear where proper treatment is instituted for the relief of the bone condition. Where the abscess is allowed to open of itself, it invariably becomes infected with septic organisms. If such an abscess burrows too close to the skin, infection may arise from organisms that gain entrance through hair follicles or sweat glands; or the skin may become invaded with tuberculous disease. The treatment of these abscesses may be undertaken in several ways. The author advises against aspiration, also against the injection of germicidal agents into the abscess cavity. The excision of the sac entire is usually out of the question, unless the abscess be small and quite accessible to such procedure. Treatment by incision and drainage results in a long continued discharging sinus, which often endangers the life of the patient. Incision, evacuation of the contents, curretting of the walls of the abscess cavity, and complete closure of the wound, done under the most aseptic technique, affords the treatment of choice. He reports 55 cases so treated, only 7 of which afterwards broke down, while the remaining 48 were permanently closed, after periods varying from four months to six years. Five of the cases required a second evacuation of contents, and one case a third.

Fair Play From The J. A. M. A.

On another page we print a letter from Dr. William Krauss, of Memphis, in which he complains of the attitude of the editor of the Journal of the American Medical Association toward some pertinent correspondence of his, and also brings out the point that it may become necessary to make the recently organized Southern Medical Association a representative body of Southern Practitioneers generally. Were it not for Dr. Krauss' professional prominence, and our knowledge of the fact that anything from his pen can safely be regarded as worthy of publication, we should of course be inclined to place him in the category of disgruntled contributors who have sought a medium for airing their views which were not deserving of the space that they would occupy, and would dismiss the matter without further thought. But Dr. Krauss is a conspicious man in the medical profession, well known for his highly scientific work, particularly in malaria, and who writes usually only when he has something of value to put in print, so we cannot understand why his communication to the Journal of the American Medical Association should have been crowded out as announced by the stereotyped form of letter stating that there is "no room," which every editor knows is but a semipolite way of declining matter for publication. Furthermore, we have heard complaints of various other physicians of accepted ability as to refusal by the Journal of contributions of theirs, and of delays in the publication of their contributions, which were not justified apparently, inasmuch as numerous articles of later date appeared prior to theirs.

This is an unfortunate state of affairs-and is surely going to bring about harm, ful results to the American Medical Association. We have come out in the pages of the Monthly in strong advocacy of the editor of the Journal of the American Medical Association, and have sought to defend him against his decriers, for we have felt that the strength of the medical profession lies in unity and organization, and such a state could not obtain without harmony. There is, however, a most decided undercurrent of dissatisfaction with the conduct of the affairs of the Journal, and it behooves the trustees of the association to checkmate this at the earliest possible moment by placing the house in order.

The organization of the Southern Medical Association this fall was not, we are confident, the result of any dissatisfaction over the conduct of the general affairs of the American Medical Association, and its promoters, as represented by its able president, who not long ago called on the editor of the Monthly in connection with the interests of the new organization, assure us

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Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

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that they in no wise desire to conflict with the purposes or impair the meetings of the American Medical Association, but that they seek to develop an organization which will reflect the views and works of the representative element of the medical profession in the South. This object is thoroughly laudable, and that it is justified is borne out by the fact that some of the best work and most epoch-making discoveries in medicine have resulted from the efforts of Southern physicians. That there is not a general average of excellence in the profession of the South is admitted, but this state of affairs has been the result of sparsely settled communities and an impoverished people, and a low standard of education which the necessities of the case permitted. But the profession of the South is on a steady upward course. Sentiment is rapidly crystalizing in favor of higher educational requirements, and with growing prosperity, the medical profession and medical institutions of the South will in a short time compare favorably with the general average elsewhere, not being confined, as heretofore, to isolated examples and occasional outcroppings. To further this development the Southern Medical Association was organized.

We should be exceedingly loath to say anything that would tend in the least to weaken one link in the chain of professional unity which the American Medical Association is forging, but seeds of discontent are being sown broadcast, and unless some existing errors and abuses are corrected, the smoldering sparks will burst into a flame that rapidly will grow in size and intensity, and the American Medical Association and medical organization as represented by it will be done an irreparable injury. The sum total of medical knowledge and medical influence does not emanate from any one or particular section of the country, for good may and does come out of all, and the Journal of the American Medical Association should represent every section without discrimination. The Monthly is a strong advocate of medical organization and higher medical education, and ever will be found in the lists prepared to fight the battles of these causes, and our voice even now is raised in a cry for but a fair field and no favor.—Memphis Medical Monthly.

Quinine Hemoglobinuria or Blackwater Fever.

A. D. Kelcher reports the case of a man 28 years who was suffering from chronic malarial poisoning and in whom the administration of quinine presented the invariable sequence referred to in the title. Refer-

ence is made to other similar cases on record. One and a half grains of quinine would cause hemo-globinuria to appear in two hours. The indications for treatment of the case reported were perfectly clear, and simply consisted in stopping the administration of the quinine which was so evidently the exciting cause of each attack, and if the quinine is the exciting cause of in all cases, the continued administration of this drug seems quite irrational and productive of nothing but harm. In this case, within 24 hours of the commencement of the attack, the urine had again become its natural color, the jaundice had almost disappeared, and the temperature was only slightly above normal. If repeated doses of quinine had been given the patient's symptoms would have been intensified instead of disappearing, and from the gravity of the condition after single doses it would have been easy to foresee a a fatal termination had the original cause of the the attack been frequently repeated over a short period of time.—British Medical Journal.

A Digitalis Preparation of Uniform Potency.

In Revue de Medicine, Dr. I. Cecikas, of Bucharest, discusses the properties and uses of Digalen. He says in part: "Digitoxin, the active principle of digitalis leaves, which was first isolated by Schmedieberg, corresponds very closely in its physiological effects to the action of the leaves. It is crystallizable, but has the disadvantage of being insoluble in water. It acts very slowly, and, on this account, it is liable to cumulative action. Besides, it is decidedly toxic and requires very careful handling for daily use. Digitoxin soluble Cloetta, or Digalen, on the other hand, is amorphous. Its elementary chemical composition is identical with that of crystallized digitoxin, and the physiological action is also the same. Its amorphous state is due to the arrangement of the molecules, and its solubility depends on this also.

"When administered internally Digalen promptly gives rise to the characteristic physiological action of digitalis. Owing to its solubility, each dose is eliminated before the next one is given, and therefore it is claimed that cumulative action cannot occur. The usual dose is 1 cc. (16 min.), representing 0.0003 grm., or 1-222 grn. of amorphous digitoxin. Several observers have resorted to intravenous injections and obtained striking results. Kottman states that the blood pressure increased within five minutes to a notable degree, and the effect lasted for several days. The frequency of the pulse and its rhythm were not usually affected. No toxic action of any kind was seen."

Pertinent Thoughts.

The epidemics of la grippe which have made their annual onslaughts for some years, have taught us that this disease, once considered of no serious consequence, is so dangerous and difficult to treat, that any suggestion regarding medication is always gratefully received.

With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and heart sustainers, rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging action of skin and kidneys, with possibly minute doses of blue pill or calomel. We have found much benefit from the use of Antikamnia and Codeine Tablets in the stage of pyrexia and muscular painfulness. This tablet, containing 4 3-4 grs. antikamnia and 1-4 gr. sulphate of codeine, is a sedative to the respiratory centres. In the treatment of la grippe and its sequelae its value ishighly esteemed. In diseases of the respiratory organs following an attack of la grippe, pain and cough are the symptoms which especially call for something to relieve. This combination meets these symptoms, and in addition, controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor; in the uterine contractions which often lead to abortion; in the various neuralgias, and in all neuroses due to irregularities of menstruation, this combination affords immediate relief. In these last conditions, always instruct that tablets be crushed before taking.

Antiphlogistine vs. Inflammation.

BY C. R. WILSON, M. D., OF LOUISVILLE.

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Vainly resisted, meets Antiphlogistine,
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Subdued thus completely, yet chiding her kids,
Pneumonia, orchitis, and reddened eyelids.
Berating, profoundly, her poisonous uncle,
That hydra-head demon, "Throbbing Carbuncle."

"It's shameful succumbing to Antiphlogistine!
The whole push subsiding from tonsil to spleen!
I even grow redder from germ laden plaster,
And all doctors know, that I am its Master."

"Germ plasters, Mother," proclaimed synovitis,
"Could not penetrate to simple metritis,
But Antiphlogistine, that now reigns as queen,
Subdues us, collectively, hidden or seen."

Neurasthenia.

Today it is generally recognized that neurasthenia is a real morbid condition. It is not the result of modern civilization, as many writers would have us believe, but an actual disease that has probably existed as long as society. The name is not a generic term and when so used implies ignorance of the real condition it describes. Instead, it represents a specific malady with a definite etiology, pathology and symptomatology. There can be no question but that the trend of modern life, particularly under certain conditions, tends to aggravate and multiply cases of this disease. Overwork is unquestionably one of the principal causes, coupled with anxiety, worry or persistent excitement. It is a fact that the nervous system or the mental economy of any person can stand only about so much. When overtaxed the results are bound to be disastrous, just as a muscle will suffer from excessive work. Add to overwork, individual habits, including excesses of all characters, and neuropathic tendencies which are all too often the result of hereditary influences, and it can be readily seen that nerve tire is of prime importance in the development of neurasthenia.

Within later years certain toxic states, such as syphilis, rheumatism, malaria, or the auto-intoxication of chronic constipation, have been recognized as important factors in the etiology of the dis-

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ease. At any rate close study points to this important fact, that not one, but several causes unite to produce the group of symptoms ascribed to neurasthenia.

The prime object in treating this distressing condition is to restore nerve balance. Change of scene, regulation of the diet and correction of habits and faulty hygienic conditions are desirable features. But something more is always needed, and without the administration of some efficient tonic the neurasthenic will make little or no substantial improvement. The principal desideratum is to choose a tonic that goes further than mere temporary stimulation, one that will assuredly impart vigor to the nervous system, and at the same time assist each weakened organ in the re-establishment of its functions. Such a tonic is Gray's Glycerine Tonic Compound. Clinical experience has proven the therapeutic value of this well known product and under its administration the various conditions incident to neurasthenia are corrected and overcome. The nerve balance is restored, the digestive organs take up their work, normal elimination is promoted, and the various symptoms characteristic of nerve exhaustion are dissipated without the slightest evidence of undue stimulation.

Gray's Glycerine Tonic Compound moreover has this very important advantage, it not only aids worn out, tired cells and organs to do their work, but it does more—it helps them to help themselves. The results obtained, therefore, are permanent, not transitory.

The Care of Growing Girls.

One of the most responsible tasks of the family physician is to advise parents of girls entering upon their 'teens, as to the diet, mode of life, and hygienic measures best calculated to preserve the health of budding womanhood. In dealing with these cases the practitioner is often called upon ot treat the anemia which in such a large proportion of instances characterizes the unfolding of the growing girl. Full well does the family doctor grasp the meaning of this anemia, and the vast importance of combating it before it is too late,—before the impoverished condition of the blood of puberty has left its imprint upon the powers of resistance of the adult organism; has done permanent damage to the future woman and the future mother.

Unsuitable diet, an over-indulgence in sweets or spices, over-study, lack of fresh air and physical exercise, indulgence in late hours and abandonment to novel reading, to tight lacing, and other abominations of dress, contribute their quota to the causes of anemia in the growing girl. Each of these factors is, of course, removable by good common-sense advice to parents and by proper exercise of discipline. Still, when the damage has been done, we must assist nature in its generous work of restoration, and here it is that we are obliged to give that sovereign cure of impoverished blood, iron, in such form as may best be suited to these cases.

The question as to what form of iron we should give to produce the best possible effects has been solved by both experimental and clinical researches conducted during the past twenty-five years—ever since Bunge and Hamburger experimentally demonstrated the inferiority of inorganic preparations (Morat and Doyen, Traite de Physilogie, Paris, Masson 1909, I, 467). Iron, in the anemia of puberty, produces the best effects when given in a form that will stimulate digestion and increase assimilation, i. e., in the form of the peptonate. With it should always be combined that second hematinic which has been shown to enhance the value of iron,—manganese,—and the two are best given in the form of the well-known solution, styled "Pepto-Mangan (Gude)."

With this may be given, in the anemia of growing girls, minute doses of Fowlers' Solution, or else equally small doses of strychnia which may be incorporated with Pepto-Mangan as indicated in individual cases.

Pepto-Mangan has a great advantage over other forms of iron medication in that it does not constipate. Girls at puberty, however, are notoriously prone to constipation. Therefore, this should receive proper attention, chiefly in the regulation of diet, including a sufficient amount of fruit, raw and cooked, and of cereals giving a large residue of cellulose.

With this method of treatment many a physician has achieved success which was rewarded tenfold, by the sight of rosy faces and bright eyes.

Something Good to Know.

In my cases of bilious vomiting I have been giving to adults one granule of aconitine, gr. 1-134, dissolved, every fifteen minutes. Usually the first dose stops the vomiting, although I give four doses, which I follow with calomel and podophyllin, gr. 1-6 each for six doses. After four hours comes a full dose of saline laxative which cleans out the bowels and ends the trouble. The aconitine seems to destroy the sensitiveness of stomach when bile enters.—W. MOFFAT, Grand Rapids, Mich.; From The American Journal of Clinical Medicine, February, 1907.

Sanmetto In Enlarged Prostate and Chronic Cystitis, Irritable Bladder and Urethra.

I have used Sanmetto in enlarged prostate and chronic cystitis in old men with marked good results, and observed that there was decided aphrodisiac effects; also in irritable bladder and urethra in the early months of pregnancy, with very happy results.

M. A. RUSH, M. D.

Anderson, Ind.

Sanmetto In Prostatic Irritations, Urethral and Bladder Troubles.

I have used Sanmetto extensively in my practice in prostatic irritations, urethral and bladder troubles, and am well pleased with the results obtained. In cases where the drug is indicated I always feel confident of obtaining good results.

J. A. DOWNEY, M. D.

Logansport, Ind.

Sanmetto In Prostatitis, Chronic Cystitis and Enuresis.

I have had a very large experience with Sanmetto in prostatitis so common in old men, also in chronic cystitis in both sexes, and find it prompt, efficient and reliable in these and in all other cases of irritability of the genito-urinary organs. Have also used it with great satisfaction in enuresis; in fact, I think it will cure any case where no mechanical cause exists.

EDW. J. LIBBERT, M. D.

Aurora, Ind.

Thomas W. Forshee, M. D., of Madison, Ind., writing, says: "It is a pleasure to me to add my testimony to the hundreds of other physicians in attesting the merits of Sanmetto. I have used it extensively in my practice since its inception, and without any failures where it was typical. For vesical irritation in both male and female I find it perfect. Not that every case is cured by it, but when I make failures I find them due to some mechanical displacement or to tuberculous conditions. For prostatitis I have never found any remedy that approximated it. I have used it myself with remarkable success. It is not necessary for me to say that I shall continue its use where indicated."

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Narcotics In Diabetes

The question of administering anesthetics to diabetic patients is discussed by Kausch, who summarizes his opinions as follows: General anesthesia should be used as seldom as possible in dealing with diabetics, and the various methods of local anesthesia should be resorted to when feasible. Anesthesia for diagnostic purposes alone is to be avoided, as well as a repetition of the anesthesia Ether is always to be preferred to chloroform. The amount of the anesthetic agent and the duration of the anesthesia should be reduced as much as possible, and in order to avoid the production of acetonuria through long fasting it is advisable to operate early in the morning. In order to prevent acidosis every diabetic who is about to be operated on should be given bicarbonate of soda until the urine become alkaline. If coma is threatened sodium bicarbonate should be administered vigorously by mouth, by rectum, and intravenously.—Archiv fur klinische Medizin.

Action of X-Ray on Tuberculous Adenopathies.

Giuseppe Caccia and Carlo Francioni have used the X-Rays in four cases of tuberculous glands of the cervical region, the glands in one of them being of enormous size. This patient was a baby of five months of age, and the glands were of such size as to give rise to a possible diagnosis of lymphosarcoma, although it was finally decided to be atypical lymphatic enlargements of tuberculous nature. After the first application the glands diminished in size and continued to diminish until they had disappeared. At the same time the glands of the opposite side of the neck had become enlarged, and the child had fever and was in failing health. The spleen had also become enlarged. A fatal result ensued after some months. The autopsy showed the glands to be tuberculous, and the infection had extended to the intestines, mesenteric glands and spleen. The remainining three cases were not at all benefited by the treatment. The conclusion arrived at is that

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radiotherapy is valueless in tuberculous adenitis of the ordinary type, but that it is of value in the lymphomatous type.—Rivista Critica di Clinica Pediatrica.

A Fatality Following Subcutaneous Calomel Injections.

The practice so generally followed in Paris of treating syphylis by depositing insoluble or comparatively insoluble salts of mercury under the skin, especially of the buttock, is occasionally followed by abcess or other unfavorable result. Antonelli, in a discussion before the Societe de medicine de Paris, referred to a case in which a curious accident occurred with an unfortunate result. A patient who had received one of these injections for a grave ocular manifestation of syphilis a few days later fell down stairs, striking with all his weight upon the part selected for the injections. The following day he had a stomatitis, which became violent, and was attended with œdema of the glottis, which led to a fatal termination. —Le Progres medical, June 16; 1906.

Ruptures of the Urethra, Intrapelvic and Perineal

Deanesley, (The London Medical Lancet) says that the text-book descriptions of urethral lacerations due to violence are not correct. He has found that ruptures due to direct fall or blows on the perineum usually take place in the urethra in front of the broad ligament. The rupture is usually complete.

In these cases the extravasation of urine is modified by the anatomical outlines of Colles, fascia. When the trauma is the result of violent lateral compression of the whole pelvis, the rupture is always a complete one in the membranous urethra behind the triangular ligament, at the point where the urethra enters the apex of the prostate. In these cases, the urine collects in the prevesical space, i. e., the extravasation is intra-pelvic. The reason why the uretha ruptures in lateral compression of the pelvis is due to the accompanying antero-posterior lengthening of the pelvic diameter which ensues, causing a laceration of the fixed portion of the intrapelvic part of the urethra at the weakest part. He has seen ruptures of the membranous urethra due to antero-posterior compression of the pelvis. The situation of the extravasated urine in the second group of cases should be remembered when the catheter is introduced. The tip of the catheter enters the-prevesical space, draws off the urine and the surgeon may conclude that he has emptied the bladder.

As regards treatment, he finds the two ends of the torn urethra, introductions of a catheter into the bladder, suture of the perineal incision with the exception of a small opening for a drainage of the bladder through the catheter by means of the Cathcart apparatus. If the rupture is complete a few sutures should be introduced. The writer emphasizes the necessity of early operation.

Cysticercus Cullulosae In the Tongue of a Child.

L. De Gaetano describes a rare case of cysticercus cellulosæ in the tongue of a child of ten years. The child had associated with dogs and other animals, but there had been no symptoms of tenia in the child or any other members of the family. For two years there had been noticed a nodule on the left side of the tangue, which latterly had grown rapidly until it was the size of a large nut. It was covered by normal mucous membrane, hard, and embedded in the muscle of the organ. When enucleated it was found to constitute a cystic tumor with a firm capsule, from which on cutting there flowed a limpid liquid, and the internal surface was covered by a yellowish-white membrane, at one portion of which was located a small white mass, the egg of the tape-worm. The larva must have reached the stomach or duodenum, when it was liberated by the digestive juices and the animal must have migrated to its permanent location by way of several other organs.—Rivista di Clinica Pediatrica.

Ovarian Cyst With Sarcomatous Degeneration.

J. Abadie and X. Bender reports this case. The patient, a woman fourty-four years old, had had three abortions. The last abortion occurred four years before the patient's entrance to the hospital. The first appearance of the tumor was noted one year after the last abortion. Pain had increased gradually, the most severe paroxysms being felt in the right iliac fossa. The tumor was very large and seemed to be divided into two parts. Ascites was marked, Laparotomy revealed a polycystic growth. It was divided into several parts by partitions of very resistant fibrous tissue. Adhesions to the surrounding tissues were numerous. The patient died three months later. Microscopical examination of the neoplasm showed it to be a multilocular cyst which had undergone sarcomatous degeneration. Peritoneal metastases were noted.—Annales de Gynecologie et D'Obstetrique.

Arteriosclerosis.

Devoto says that in arteriosclerosis there is not an exact correspondence between the anatomical alterations and the clinical phenomena. He enumerates the causes

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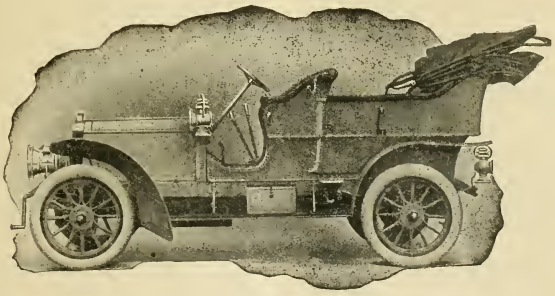

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that may produce the condition, and states that in defining the relation between arterial pressure and arteriosclerosis we should not omit those causes which favor the chronic renal lesions, hypertrophy of the thyroid, alterations of the respiratory organs, and those which result from insufficient food. From the point of view of therapeutic treatment, he says that the symptoms which show the existence of arteriosclerosis, such as modifications of pressure, etc, can be favorably affected by iodine and other chemical and physical means.—La Riforma Medica.

The Failure of Goppon Sulphate as a Purifier of Water.

Moore and Kellermann having (in 1884) proved the destructive power of copper sulphate upon the algæ, of which several species are killed by solutions of one millionth, next sought to extend this action to pathogenic microbes. Having ascertained from their laboratory experiments that the typhoid bacilli are destroyed by a dosage of one to one hundred thousand, they tried to make use of this observation upon a large

XXXVII

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scale for the sterilization of the drinking water of cities. Lacomme and Lancelot, at first, and Clark and Gage subsequently, have shown that the use of such weak solutions only gives a false sense of security. Experiments made with colon bacilli, Eberth's bacillus, the bacillus of paratyphoid, bacillus subtilis, a bacillus isolated from these waters and the yellow staphylococcus, have proved that the addition to such infected waters of copper sulphate does not give any adequate security against infection, and indeed the solution does not become toxic to the microbes except in solutions too strong to be used in drinking water.—Bulletin general de therapeutique.

Treatment of Certain Cases of Contractures, Spasms, and Tremors of the Limbs, by Local Injection of Alcohol into the Nerve Trunks.

Brissau, Sicard, Tanon (Revue de Neur., July 30, 1906) encouraged by the favorable action of deep injection of alcohol in cases of facial neuralgia and facial spasm, were led to try the same remedy in cases where the limbs were affected. They give a reference to previous work on the cranial nerves.

In the first place, they made numerous experiments on the sciatic nerve of dogs and rabbits to test the effect and limit of safety in the injection of alcohol into a mixed nerve. Various strengths of alcohol, from 5 per cent. up to 8 per cent., were tried. After 80 per cent., the dogs sometimes showed a paresis of the foot, which, however, disappeared after one or two days, On histological examination, the sciatic nerve showed, forty-eight hours after the operation, an increased vascularity, and later, degeneration of some of the fibres.

Clinically, in man, the writer used alcohol of 80 per cent., containing 1 per cent. of stovaine, injected about two cubic centimetres high up in the course of the sciatic nerve, which lay at a depth of from three to nine centimeters, according to the stoutness of the individual. Immediately after the injection, coldness and anæsthesia of the limb, some paresis of the foot, loss of the Achillis-jerk, and of all spasm or tremor in the limb were the noticeable features. Later, up to ten weeks after a single injection. absence of all clonus and of the Achillis-jerk, but no anesthesia, paralysis modification of the electrical reaction, or tropic changes were observed.

Twelve cases ore recorded in which the method was used with benefit, viz spasm of the foot of fifteen years' duration; hemiplegia with athetosis (two cases); spastic paraplegia (two cases), paralysis agitans; pseudobulbar paralysis with clonus; and sciatica (three cases).

In later researches the writers had satisfactory results with a strength of 40 to 45 per cent. of alcohol, but found that the effect of 20 per cent. lasted only a few days. —Review of Neurology and Psychiatry.

Sudden Death from Acute Pulmony Edema During the Course of Phlegmonous Periamygdalitis.

Louis-Albert Amblard describes a patient under his care, after the symptoms of a mild attack of plegmonous periamygdalitis had subsided, suddenly died from an acute general edema of both lungs. He considers this case an interesting actual proof of the theories which attribute extremely acute edema of the lungs to troubles of the nervous system. It seems especially to uphold the theory of pulmonary vasodilator inflammation, on account of the irritation of the pneumogastric caused by the compression of this nerve against the cervical region by inflamed lymphatic ganglion. Careful macroscopic micoscopic examination proved the integrity of the organs usually involved. There was no nephritis, the heart was healthy, the aorta showed no trace of atheroma, nor were there any signs of those valvular lesions, such as mitral stenosis and aortic insufficiency of rheumatic origin, which have, at times, been considered the cause of acute edema of the lungs.—Gazette des Hopitaux Civils et Militaires, August 21, 1906.

The Responsibilities of Accoucheurs.

Cases have occurred lately in which medical men have been brought into sad trouble because they either had, or were said to have, left something in the uterus after delivery or abortion. One case occurred at Hastings. The doctor sent in his bill for £13 13s. 6d., and the patient's husband refused to pay it, and claimed £50 damages for what he alleged was neglect. The patient was delivered of a child before the doctor's arrival, on March 18. The report in the local paper, which we have before us, is deficient in technical details. According to it the doctor *asked the nurse* to examine the placenta. If he had himself made a careful and complete examination of the placenta and membranes, as every accoucheur should, nothing would have been gained by the less perfect examination of the nurse. On the days following delivery the report is that the doctor asked the nurse whether she was douching the patient, and when told she was, asked if she had boiled the tube, and was told she had not. Here, again, if the report is correct, is an abnegation of his proper position by the doctor. It is for him to direct, not for the nurse to choose whether the patient is to be douched or not, whether the tube is to be boilod or not. On

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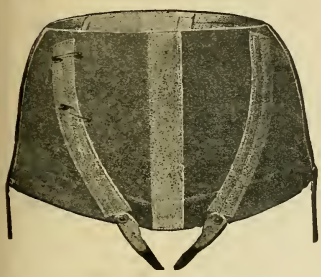

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March 22 there was a rise of temperature; this occurred again on March 26. On April 1 there was a rigor. A consultation was held, an "operation" was performed, and something which was alleged to have been offensive was removed. On April 12 the patient had "epileptic convulsions"; on April 13 a consultation with a physician was held and the patient found the be paralyzed. Finally the woman died. It was not denied that she died from blood-poisoning, but it was asserted that the source of the poison was not the uterus. The nurse stated that the discharge was offensive, and that she reported this to the doctor; but he, having a cold, did not detect the bad smell, and so made no examination until alarm was caused by the rigor. The jury found that the doctor in not making an examination at this time had committed an error in judgment, and was therefore not entitled to his fees; and they found damages against him to the amount of one shilling. The moral of this case appears to be that an accoucheur should give close personal attention to every detail of his work, and not leave things to be decided by the nurse; and that when serious symptoms develop during the lying-in period he should without delay make a thorough examination.—British Medical Journal.

Eighty-five Gynecological Operations by the Abdominal Route.

Begouin reports eighty-five major gynecological operations by the abdominal route without one death. Of these twenty-six were ovariotomies, thirteen were ovariosalpingectomies, and forty-six were hysterectomies. The writer attributes most of his success to the fact that he has laid great stress upon the necessity of increasing the resistance of the patient before operation, especially in the cases of uterine cancer and hemorrhagic fibromatous growths. After the operation he has made use of serum and spartein if the heart was weak. He has also taken great care in the disinfection of the vagina, using cyanide of mercury and peroxide of hydrogen for this purpose for several days preceding the operation. This seemed especially essential in the cases of carcinoma.—Gazette Hebdomadaire des Sciences Medicales de Bordeaux.

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The Charlotte Medical Journal.

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The Surgical Treatment of Gastric Ulcer and Cancer.

By J. Norment Baker, B. A., M. D., Montgomery, Alabama.

The history of successful gastric surgery is not more than six years old, and the best of it is not of more than three years duration; consequently, sweeping deductions, incapable of absolute refutation, are not claimed. Yet, within this brief period, strides so broad and so bright have been made as to remove this field of surgery from the realm of experimentation and to place it on a firm and stable basis.

Faulty mechanics in the stomach produce faulty digestion; and, following in the wake of faulty digestion are the myriad ails of the dyspeptic. The prime object sought for in the application of surgical measures to benign troubles is the correction of this faulty mechanism.

In order to bring this paper strictly within the scope of its title, let us consider first the surgical treatment of gastric ulcer; and in the consideration of this subject, duodenal ulcer will also be included; as that portion of the duodenum lying above the opening of the common duct is exposed to the same ulcerless producing causes that exist in the stomach. In fact, surgical experience points out that important point, viz: that the large indurated ulcer which is easily demonstrable at operation, occurs in this portion of the duodenum with almost as great frequency as in the whole of the stomach.

The indications for operation are fairly well defined. As a rule, cases of acute ulcer are not to be operated, except in the face of threatening complications, such as perforation, severe hemorrhage and grave obstruction (Mayo). As regards hemorrhage, there is room for honest doubt; Rodman, of Philadelphia, states that in such cases the variety of ulcer, its acuteness or chronicity, the amount of hemorrhage, its recurring nature and the size of the vessel involved, must all be considered. Portis, of Chicago, holds that no operation is needed in acute ulcer unless perforation is imminent, or has occurred, or unless serious hemorrhage compels it. He does not state how the imminence of perforation is to be determined, and I should think that this would be a rather difficult point to decide. Further, differentiation must be made between hemorrhage from an acute and hemorrhage from a chronic ulcer. The acute ulcer with hemorrhage occurs most often in young, anaemic women. While often marked, they do not usually call for surgical measures, and yield to medical treatment. Neurotics, with atonic, splashy, prolapsed stomachs offer poor results, unless there be also well defined pyloric obstruction. The reckless and hasty operating of cases belonging to this group is one of the prime factors which has served to provoke harsh and unjust criticism against surgical measures. It cannot be too strongly emphasized that patients suffering with gastric neuroses are not the proper subjects for operation.

The clearest cut cases for operation, and the ones giving the best and most permanent results are those in which there is pronounced stagnation and retention of food dependent on mechanical causes—most usually an obstructed pylorus. In this class are to be included also those chronic cases with frequent acute exacerabations.

The Operation.—The operation of choice for acute or chronic ulcer of the stomach or duodenum is a "no-loop" posterior gastro-jejunostomy. This is the operation which the Mayos, by preference, always make. In their last 136 operations they report but one death; a mortality of less than one per cent. Nor is this showing exceptional, for it is being duplicated by others. By the employment of this "no-loop" operation, one of the chief subsequent unpleasant complications, chronic regurgitation of bile—the so-called "vicious circle"—is practically obviated.

The incision is a liberal vertical one from ¾ to 1 inch to the right of the median line, splitting the fibres of the rectus abdominis muscle, the lower end of the incision being opposite the umbilicus; through such an incision the gall-bladder and appendix can also be reached without difficulty. The transverse colon is drawn out of the abdominal incision and by a steady traction to the right and upward the mesocolon is brought out until the jejunum comes into view, and the intestine is grasped at a point three or four inches from its origin. On drawing the jejunum tight, the fold of peritoneum that covers the ligament of Treitz, —which is a small band containing muscle fibres—is developed; this band will be found to lead to the base of the vascular arch of the middle colic artery, and accurately marks the place where the transverse mesocolon is torn through to secure the posterior wall of the stomach. The stomach is drawn through this opening and the anastomosis performed; beginning at a point one inch

above the greater curvature and ending at the bottom of the stomach, two and a half inches to the left. In order to secure a proper low point a small opening is made in the gastro-colic omentum and one-half inch of the anterior wall pulled through behind. Having these features in view, a considerable portion of the posterior wall is drawn into a pair of light elastic curved clamps,—the blades being protected by rubber tubing. The handle lies to the right and transverse to the axis of the body. Beginning one and one-half to three and one-half inches from its origin, the jejunum is drawn into a similar pair of clamps, placing about three or four inches of this vicus opposite the mesentery within the grasp—the handle being also to the right. It will thus be seen that the left low point of the stomach lies in the tip of the clamps and the distal point of the jejunum lies also to the left. The two clamps are now placed side by side and a continuous cushing suture of celluloidal linen, carried on a fine cambric needle, running from left to right, fixes the intestine to the stomach; this line of suture should extend for at least two and one-half inches.

The stomach and intestines are now incised one-sixth inch in front of the suture line and the redundant mucous membrane excised flush with the retracted peritoneal and muscular coats. With a No. 1 chromic catgut on a straight needle the posterior cut margins of the entire thickness of the gastric and intestinal walls are united by a continuous lock stitch from right to left; at the extreme left, the suture changes to one which passes through all the coats of each side alternately, from the peritoneal to the mucous, then directly back on the same side from the mucous to the peritoneum. This acts as a hemostatic suture, and also rolls the serous coats into apposition. It passes around the anterior surface and is tied to the original side, which has been left long for that purpose. If silk or linen is used for this suture, it may hang in situ suppurating for months.

The clamps are now removed and the linen thread continued around until it is tied to the original end, firmly catching the blood vessels in sight along the suture line.

Finally, the margins of the incised mesocolon are united to the suture line by three or four interrupted sutures. These sutures are important in that they tend to hold the jejunum in place and prevent angulation and kinking.

The abdominal incision is closed in tiers and without drainage.

After-treatment.—On being placed in bed, a glass female douche point is passed just above the internal sphincter ani, attached to a gravity bag filled with deci-normal salt solution. The elevation should not be greater than six or eight inches and the small stream thus flowing into the colon is taken up with avidity.

The patient is then placed in the Fowler, or exaggerated Fowler, position. After sixteen to twenty hours, an ounce of hot water may be given every hour; this is rapidly increased, and in thirty-six hours the usual experimentation with liquid feeding is instituted.

Rectal feeding is unnecessary.

Next to the operation just described, the Murphy button is the most desirable. The chief points in its favor are the ease and rapidity with which the anastomosis can be made and the fact that it is least liable to be followed by the passage of bile into the stomach. The main objection to its use is the frequent retention of the button within the stomach and the liability of the approximated surfaces to separate after the button has been liberated. The button should always be protected by four or five mattress sutures of silk placed at intervals.

Gastro-duodenostomy, after the method of Finney, has a limited sphere of usefulness, and in selected cases gives good results. One of the chief contraindications is the presence of extensive scar tissue around the pylorus, thereby necessitating the sutures being placed in devitalized and degraded tissue which always heals poorly.

Cancer of the Stomach.

In the light of our present knowledge, relief, in cancer of the stomach, if it comes at all, must be by surgical means. The internists still enjoy the unbroken and unenviable record of a 100 per cent. mortality. In other words, cancer of the stomach has no medical side. With this record, coupled with the painful fact that cancer of the stomach is the most frequent form found in the human body—the uteras and mammary gland not excepted—does it not behoove the surgeon to assail this disease with a merciless hand?

This he is now doing; and what has he to show?

In the earlier years, the mortality was considerably more than 50 per cent; in the last few years, with the improvement of technic and a fuller knowledge of the anatomy of the parts, the mortality has dropped to less than 30 per cent. In Mikulicz's clinic, up to the year 1898, in 56 resections, the mortality was 46.5 per cent. Since 1898, 44 resections have been made with a mortality of only 25 per cent. Unfortunately the permanent results are less satisfactory. Mikulicz has definite reports from fifty-eight patients who recovered from operation; twenty of these were living at the time

of report from six months to eight and a quarter years after operation; seventeen having survived a year or more; ten, more than two years; four, more than three and a half years,—as none of the four last mentioned showed signs of recurrence they may be considered cured. Estimated in this manner, the percentage of radical cures is seventeen. Thirty-eight died of recurrence at periods varying from two and a half to forty-seven months; seven of them lived more than two years after operation; nine, more than one and a half years; and six, more than one year. The average duration of life was over sixteen months.

The latest reports from the Mayo's clinic shows sixty-three radical operations for gastric cancer--nine failed to live six months; fourteen, alive now, have been operated too recently to be of value; forty lived from six months to a year, and twenty-three are alive now; twenty-five from one to two years and seventeen are alive now; twelve from two to three years and ten alive; five, from three to four years and four alive; one, five years, and is alive now.

It will thus be seen that five of these cases lived over three years,—one dying in three years and five months from recurrence in the liver.

Eighteen who survived the operation were operated more than three years, giving a percentage of 27.7 living three years, and 22.2 alive and well over three years.

These figures are unsatisfactory, yet it must be conceded that they are far more encouraging than those adduced by the internist. As a matter of fact, they compare favorably with the operative results for cancer in other portions of the body.

The technical difficulties of the operation for partial or total gastrectomy are not great, and accurate descriptions can be had in almost any of the modern text books on surgery. There are a few anatomical points which must be borne in mind. The stomach has an abundant blood supply from four sources—the gastric, the left gastro-epiploic, the superior pyloric and the gastro-duodenalis arteries.

Each of these must, in the beginning, be isolated and ligated; after which, the resection can be proceeded with in an almost bloodless manner, just as in an abdominal hysterectomy, the securing of the four vessels supplying the uterus makes this a bloodless operation. More important still, is the arrangement of the lymphatics and lymph nodes of the stomach; for, after all, it is the thoroughness with which these are removed that tells the story as to recurrence of cancer.

Most and Cuneo have worked this out in a most beautiful manner; they have shown that normally no lymph glands exist to the left of the middle greater curvature and that the lymphatic circulation here is from left to right. Therefore, the point of resection on the greater curvature should be just to the left of the lymph nodes, unless the growth be in the left half of the stomach. Further, they have shown that the lymphatics of the lesser curvature lie in the wall of the stomach itself; therefore, as a routine measure, the whole of the lesser curvature must be removed.

There is also a nest of glands grouped about the pylorus and a chain lying along the upper border of the pancreas. These also must be removed, if involved, in order to insure non-recurrence.

The operation of choice, after the resection of the stomach, is what is known as the Billroth No. 2; that is the complete closure of both the duodenal and gastric ends and independent gastro-jejunostomy, employing the Murphy button in order to expedite matters.

In conclusion, allow me to quote from a recent article of Dr. W. J. Mayo on the subject:

"One cannot help but believe that more persistent attempts to better the early diagnosis of cancer would have followed on better operative results. There is no longer this excuse with an improving mortality of about 10 per cent. and 25 per cent. of the operative recoveries living more than three years. The time has come for energetic action. We must not disguise the truth from ourselves. All other means have failed and exploratory incision of the suspected case is the only known means of early diagnosis. This should not discourage us; rather should it encourage better directed efforts toward securing some less formidable means of ascertaining the truth."

Cocaine: Its Use and Abuse.

By Dr. E. P. Gordon, McComb City, Mississippi.

In considering this drug I will not attempt to give any particular information as to its therapeutic value, only giving an outline of its use, so as to discuss its abuse intelligently.

Cocaine, as we all know, is the chief alkaloid of coco. It is to this alkaloid that coco owes its place among drugs. Like most other drugs, it first held its place by empiricism.

For its discovery we must credit to that interesting but little known people, the ancient inhabitants of Peru. These people first used it by chewing the leaves; in this way they got moderate doses of cocaine. So much did they enjoy the effects of its that they regarded coco with superstitiou, awe.

It was not until 1884 that Carl Keller discovered the actual value of cocaine, though it was studied by Neiman a number of years before.

The general physiological action of cocaine is as a stimulant to the vasomotor centers of the heart, thereby raising the arterial pressure. By its depressing effect on the cardio-inhibitory ganglia it increases the pulse rate.

Cocaine induces mental exhilaration by its effect on the cerebrum. Toxic doses, however, are followed by mental depression.

To the respiratory centers it is a powerful stimulant. The field of usefulness of cocaine is as a local anesthetic; for this purpose it has no peer. In all the minor operations of the eye, nose, throat, etc., it is indispensible.

Its excellent results in sprays for hay fever, tubercular meningitis, vomiting of pregnancy, etc., is due to its anesthetic action on the mucous membrane.

As much as one dram of the two per cent. solution may be used safely, but on account of its rapid absorption care should be exercised in its use. By its effects on the mucous membrane of the stomach it will allay hunger.

After the publication of the researches of Bier in 1899 it has been used considerably in the major operations of the lower extremities, anesthesia being produced by medullary cocainization or spinal anaelgia, with the mode of which we are familiar.

On account, however, of its bad after effect it is not used so much at present.

The soluble salts of cocaine are readily absorbed, passing with equal ease through all mucous membranes.

It is due to this rapid absorption that the large number of poisoning result. It has no particular effect on the excretions except to prevent the elimination of the nitrogenous elements.

As an aphrodisiac it has not been demonstrated to be effective, being credited only by tradition to have that virtue.

However, so strongly was it believed to be such, by the ancient inhabitants of Peru, that they represented Venus as a female figure with coco leaves in her hand. To this day it plays an important part in the nuptial ceremonies of the Peruvian Indians. Certainly since its advent among the negroes in this country the crime of rape has shown an alarming increase.

Its use by the negro is the part of its effects that I expect to make the most important of my remarks.

From the time the Incas held sway over western South America, coco leaves have been used as a stimulant for various conditions.

While we are bound to admit that the wonderful stories given out by travelers, of the peculiar effect, as producing such delightful hallucinations have not been carried out by experiment on our own people, careful study, however, will show that it is only those people of a vivid imagination, such as Spanish and negro races, that it will have such an effect.

It is to its use by the negroes of this country that we as physicians and people are so vitally interested; for today we are confronted with the vast number of rapes committed in this country on the white women, exceeding any other crime of the negroes towards the white people of the South.

Twenty years ago this form of crime was scarcely ever heard of, and close investigation will bear me out when I say that the vast majority of these fiends are cocaine snuffers, for that is the manner in which they generally use it.

While taken in moderate amounts, as was obtained by the chewer of the coco leaves, it produces no bad effects, being more of a stimulant to the physical and mental powers without bad results, but taken in the form of an alkaloid it is easy to get enough to cause these hallucinations; that when dying in the victim leaves a maddening desire for crime in some form.

A statement made by a negro in my town as to its effects, after much coaxing, was this, "I can't tell you, boss, just what the feeling is, but it makes me feel so good."

Montegazye expressed the same thought in different words, as to effect produced during one of his cocaine debauches, when he exclaimed, "God is not a just God to make men live without cocaine. I had rather live ten years with it than a thousand years without it."

It is not the power of cocaine as an aphrodisiac that makes the negro desire to commit rape. It is the sense of the feeling of security that it makes him feel, that keeps him from being afraid to commit any crime.

A negro who formerly might be a very good sort of darkey, after becoming addicted to this habit is likely to become one of the worst of criminals, for before using it he is afraid to do many things that is in his nature to do. But under its influence he completely loses his sense of fear, and will be reckless enough to do whatever his nature prompts him.

We have in our community a record of a negro whose acquaintances all considered an extra good negro, until he became the victim of cocaine. He then, during one of his debauches, developed homicidal mania, and failing to kill any one else he beat out his baby's brains against the wall.

It is, of course, useless for me to give you any more examples of the crime that these unfortunate people can be guilty of, we all hear of them every day.

As to the treatment of cocaine poisoning we must prescribe according to the symptoms. Diffusible stimulants for the depression, and chloral inhalations of chloroform for excitement and convulsions produced by it.

In conclusion, gentlemen, when we realize how grave a question confronts us, to do all in our power to prevent the sale of this accursed drug.

It is from the place where they obtain it in large cities that is the chief problem with which we have to contend.

In our small towns we can by our influence with the local druggists to a large extent prevent its sale.

In my opinion it is only a few years when the use of cocaine will play a large part in the negro question in every phase in the last of the Confederacy.

Symptoms, Diagnosis, Prognosis and Treatment of Organic Stricture of the Male Urethra.

By W. J. Ferguson, M. D., Jackson, Miss.

As a rule strictures of the male urethra in their incipiency produce very slight disturbance. Patients who are unsanitary in their habits seldom notice there is anything wrong until the stricture is far advanced in development. On the other hand, patients who are cleanly with their person will notice a muco-purulent discharge, especially every morning before they pass their urine, and possibly will be able to express some glary pasty secretion out during the day, will also notice that it takes them longer to accomplish the act of urination.

In the majority of strictures the time required to start the stream of urine is no longer than that taken by a healthy man; the frequency too may be entirely normal. When the stricture becomes very narrow and the patient does not empty his bladder completely during the act of urination then micturation becomes more frequent. This incomplete urination, however, is absent in cases with strong bladders and the lumen of the urethra is not very narrow. Pain may be entirely absent, but usually there is a slight burning during micturition which is noticed the moment the stream of urine impinges upon the constricted portion. Only in small strictures urination becomes painful; in such degrees of strictures the patient is obliged to strain and bend forward so as to secure the aid of the abdominal muscles. Therefore, in many such patients you find them suffering with prolapsus of the rectum, fissures, hemorrhoids, hernias, and in some cases cerebral hemorrhages take place. The most striking deviation from the normal is shown by the urinary stream, the more anterior its location and the smaller the stricture is the greater is the loss in the volume of the stream. The stream becomes smaller and smaller until it is reduced to the size of a thread, then finally it will become so near obliterated that the urine will be voided drop by drop. In cases advanced to this extent ejaculation of semen is very difficult, the fluid is not ejected outward, but flows along slowly after cohabitation is finished, or it regurgitates back into the bladder and passes out with the urine.

Overflow of the bladder, or incontinence of urine is the most common occurrence during this stage of the disease. Behind the stricture the urethra becomes dilated into a funnel-shaped pocket and the internal vesicle sphincter becomes stretched and flabby. After there is enough urine in the bladder to rise above the sphincter it flows over into the dilated urethra and forces its way through the stricture drop by drop. In this degree of stricture there is a great danger of sudden and complete retention. This condition is not entirely dependent upon the total occlusion of the lumen of the urethra, for it happens very often when the stricture is seemingly of little consequence. Patients exposed to cold, free uses of alcohol and over-indulgence in sexual congress will very often be victims of this condition.

The portion of the urethra behind the stricture becomes inflamed owing to the stream of the urine impinging upon the contracted portion. The urethra becomes dilated, resulting in a residual urine, which goes through a decomposition setting up a catarrhal inflammation which often times extends back into the bladder causing a cystitis, which produces turbidity of the urine, and the contraction of the vesicle muscles upon the inflamed portion produces a hemorrhage. The above symptoms, as a rule, are sufficient in many cases to make a diagnosis, though one should not depend on them entirely, for a small stream, pain, slow urination, incontinence and retention occurs in other conditions than strictures; notably, spasms of the urethra, paralysis of the bladder, and most common of all hypertrophy of the prostates. A physical examination in all suspected cases of stricture is very necessary. This consists in passing a soft rubber catheter, olivary bougie, bougie a' boule, metal sounds and many other instruments devised for such purposes. The instruments that I have had most experience with is the ordinary metal sound, soft rubber catheters, and the French silk wen bougies with olivary tips. I do not cob-

demn other instruments devised for this purpose, one must confine himself to a limited number of instruments before he can become an expert in their uses.

The best plan in searching for a stricture is to commence with a good sized instrument and when one is arrested by the stricture pass a smaller one, until one just passes through the stricture; this one will represent the size of the stricture. After you have satisfied your mind that you have a stricture to deal with the first thing to do is to investigate the patients general condition, because a stricture has a whole series of complications and sequels following each other in a train. I have already mentioned the inflammatory changes in the dilatations behind the stricture. In voiding urine a few drops will collect in the dilated portion which will very likely undergo decomposition, and lead to inflammatory softening of the deeper tissues, thereby causing urinary infiltration; the tissues become disintegrated resulting in infection, and a phlegmonous process forces its way more and more towards the surface and finally breaks through causing a urinary fistula. When infiltration begins at or near the bulb in many cases swelling and redness very rapidly supervene and a subsequent discoloration develops on the penis and scrotum, and a suppurating process very often extends upward as far as the epigastrium, or backwards into the bladder, rectum or peritoneal cavity. Doctor Caspar reports a case of suppuration at the arch of the ribs. When this condition is present the patient will have all the symptoms of a violent infection, high fever, chills, profuse sweating and very often a toxic delirium, more frequently, however, the process is much slower in its development. On the perineum there will very likely be hard, irregular tumors, giving one the impression of new growths. If this condition does not become diffused you will have to deal with a circumscribed urinary abscess, which will gradually involve the contiguous tissues resulting, if not opened early, in a urinary fistula.

As I have already stated cystitis is a very common complication of stricture, although dilatation of the stricture with a few washings of the bladder with a boracic acid solution will in a majority of such cases relieve the cystitis without any special treatment.

In long standing tight strictures, the resistance which the musculature of the bladder has to overcome in forcing the urine through the narrow lumen, it very often becomes hypertrophied. If the stricture is not relieved dilatation of the ureters and pelvis of the kidneys results; in this condition infection is an almost immediate result. The ureters becomes inflamed, and the hydronephrosis becomes converted into a pyonephrosis.

The inflammatory changes in the posterior urethra often extends into the duct of the glands, thereby causing prostitis, spermatocystitis, and epididymitis.

Prognosis.—The prognosis of urethral stricture depends entirely upon the kind of stricture, its location, age and general condition of the patient. The further forward a stricture is the more difficult it is to cure. Gonorrhoeal stricture is more easily cured than traumatic strictures. In old patients with long standing strictures you will find them very dangerous and difficult to deal with. The dangerous complications that may arise in treating a stricture is usually the result of neglect. If the stricture is watched closely and the lumen kept open complications seldom arise, though the stricture is not cured.

Treatment.—The treatment of urethral stricture, as a rule, is very satisfactory. With proper skill and judgment, nearly all cases can be quickly helped. The treatment is purely mechanical and must be directed to re-establishing the normal calibre of the urethra. It is rarely ever possible to cure a stricture, anatomically speaking. We have got to deal with a narrow canal which is contracted by the formation of scar tissue. This tough fibrinous tissue can be dilated in the urethra, but as every scar has a tendency to contract there will always be danger of the stricture becoming narrow again. We must content ourselves by effecting a cure in a clinical sense, that is, benefiting the patients condition by freeing him from all difficulty, and keeping him free as long as possible.

There are three methods in treating strictures; first, dilatation; second, operative procedures, by which the stricture is divided and cut away; third, forcible divulsion. I will mention the divulsion methods first, so as to dismiss them from consideration. Their employment is irrational and they produce more harm than good; the morbid anatomy of stricture will of itself show that forcible rupture of a stricture will cause new scar formation, thereby increasing the actual cause of narrowing rather than relieving it; therefore we will omit a description of the various instruments devised for such purposes.

A distinction is made between gradual temporary dilatation and continuous dilatation. The gradual temporary dilatation in most cases is the proper treatment to pursue. This consists in the introduction of a sound, or silk web bougie, just the size of the stricture and allowing it to remain a few minutes. The next treatment should be given the third day following. The same instru-

ment should be introduced and one number larger at the same sitting; do not use force in passing the instrument, better results are obtained by being careful and going slow. In passing several instruments at one sitting the stricture is torn and possibly part of a healthy urethra is lacerated, thereby throwing open a door to infection; followed by a chill, fever, and all the symptoms of toxic absorption. When a stricture will not admit a sixteen French metal sound, use the soft olivary bougie. The introduction of a smaller sound increases the danger of producing the much dreaded false passage. The best skill and gentleness cannot prevent at times the point of an instrument from catching in a lacunea, which if pushed on will result in a false opening. The after treatment in such cases is very important. An instrument must be passed at certain intervals, so that the calibre of the stricture may be maintained. At first an instrument must be passed every third or fourth day, provided the inflammation has subsided from the last instrumentation. Then once a week, once every two weeks, and if the sound passed last goes in readily then the intervals may be lengthened to once a month and so on. This procedure, in a majority of cases, will be satisfactory, though in some instances one will find it impossible to pass the smallest filiform bougie. The difficulty may be the inability to find the true opening of the stricture, or the impossibility of penetrating the stricture because of its narrowness after the tip of the bougie has entered the opening.

These are two entirely different conditions and will demand different methods of treatment. In the latter case, where the tip of the instrument has entered the stricture but will not go any further leave it in situ for a few minutes, then try; in a majority of such cases one will be successful. After entering the stricture the instrument may be allowed to remain for an hour or two. Under these circumstances a little force may be used when one is sure the instrument is engaged in the true opening of the stricture. Employment of force is not permissible unless one is absolutely certain the instrument is going the right direction. If one has any doubt that the tip of the instrument is not engaged in the true opening of the stricture then the employment of force becomes a gross error. The cause of this difficulty in entering the stricture is in many cases due to the fact that its opening is not central in the axis of the urethra; though the opening may be too narrow for the instrument to penetrate. In the latter case a syringeful of warm olive oil will in many instances facilitate the introduction of the filiform bougie. In a spiral stricture a straight filiform bougie is very difficult to introduce, owing to the point of the instrument coming in contact with the walls of the stricture. In such cases a spiral or bayonet filiform bougie should be used.

If you find the stricture to be eccentric, and are unable to find its opening, then pass several filiforms down the urethra; then patiently work one and then the other. Often this procedure will work satisfactory. The difficulty in entering the stricture is due many times to false passages; diagnosis n such cases is at times very difficult, though if one will bear in mind that strictures do not occur behind a membranous portion of the urethra, and as the distance from the meatus to the membranous urethra averages from six and a half to seven inches, and when the instrument is arrested under this distance it is almost certain that it has penetrated a lacuna or false passage. The only other possibility is that the bougie has entered the stricture and is firmly held in its grasp. This condition could hardly be confounded with the one just described, because one can distinctly feel the clasping of the instrument by the stricture. When one is sure the instrument has entered a false passage leave it in situ and pass another one, and so on until all the false passages have been filled up with the bougies; then the chances are you will successfully enter the true opening. With the above measures it will often be possible to overcome many strictures which at first seemed impermeable. In many cases after a successful entry has been made gradual dilatation will proceed without difficulty. There are cases, however, in which gradual dilatation will be a complete failure.

In cases with purulent cystitis, stinking urine, and inflammation of the upper urinary tract with fever, rapid dilation is very necessary. In the above condition, continuous dilatation should be tried first. This consists in passing a soft silk web catheter, one size smaller than the stricture, into the bladder and fastening it there for twenty-four or thirty-six hours.

The presence of the catheter will set up an inflammatory process in the stricture, which leads to softening of the scar tissue and renders it possible after twenty-four or thirty-six hours to dilate the stricture to a certain extent without tearing. The largest instrument passed at this sitting is left same as the first one; then another rapid dilatation is made. In this way many tight and resistable strictures can be brought up to a twenty French in a week or two.

If the stricture is too tight to allow the introduction of a catheter pass a filiform bougie through the stricture and fasten same as the catheter. The patient then forces

his urine past the instrument which acts in a similar way as the retained catheter.

The continued dilatation with the catheter and bougie should be resorted to only when there is associated cystitis. When the urine is clear and cystitis absent this method is contra-indicated. When a catheter is retained the bladder should be washed out three or four times a day with a 1-1000 nitrate silver solution. There are circumstances under which the above manœuvers will prove a failure and you will be compelled to resort to operative methods. Of these I will first mention hypersensibility of the urethra, which manifests itself by the derangement of the nervous system. There are patients who experience a train of nervous symptoms after each catheterization, no matter how carefully and painstaking one may perform it. The patient is unable to work, loses his appetite and cannot sleep, and in many cases attacks of syncope and symptoms of shock occur.

Urethral fever, internal and external urethrotomy and re-section of the urethra I will leave you to consult the different authorities on this subject.

Report of Case of Dextrocardia.

By E. T. Duke, M. D., Cumberland, Maryland.

I have to report a case of true dextrocardia. The man came under my notice in making an examination for insurance. He gave a history of never having been sick, and seemed to be in excellent health. His weight was 160 pounds; height, 5 feet, 10 inches; age, 25 years. He first knew of transposition of heart when 5 years of age. Has never had any symptoms of heart disease, and has done hard manual labor daily since boyhood. On examination heart is found in right side of thorax, impulse in fifth space, an inch to left of right nipple. Heart is normal in every way. No enlargement; no murmurs; no dyspnœa; no cyanosis; no oedema. Entire absence of normal heart sounds on left side. Other organs of thorax and abdomen healthy and in normal situation.

From the literature obtainable I understand true dextrocardia is quite rare, but displacements of the abdominal and thoracic organs often occur.

Inflammations of the Iris and Ciliary Body.†

By C. M. Sandusky, M. D., Tampa, Florida.

The above title is preferable to the simpler one, Iritis, because it is almost impossible to have an iritis without a certain amount of involvement of the ciliary body. There is such a close connection between the structures in this particular tract that where one portion is diseased the remainder are extremely liable to participate. Inflammation is the commonest affection these structures are subject to and is accompanied by great dilatation of the vessels in these and adjacent structures which is manifested externally by the peculiar ciliary injection. The functional activity of the iris and ciliary body is in abeyance and the color of the iris is changed. Adhesions form between the iris and the anterior surface of the lens, or, less frequently, the posterior corneal surface, thereby changing the size and shape of the pupil and limiting the motions of the iris.

Before going further, let us briefly consider the gross anatomy and physiology of these parts. If we take an eye ball and carefully remove the scleral coat and the cornea we have the iris, ciliary body, and choroid all connected and forming the middle tunic of the eye. It is spherical in shape and dark in color from the pigment contained. An aperture in front forms the pupil and a smaller one behind transmits the optic nerve. This middle tunic collectively is called the uvea or uveal tract from its fancied resemblance to a grape.

The iris is a disc-shaped membrane with a central perforation, the pupil. At the periphery it arises from the anterior border of the ciliary body. The posterior surface lies in contact with and glides over the capsule of the lens during its movements. By lying thus in constant contact with the lens the iris gains firm support.

Looking closely at the iris we observe it has certain delicate markings, elevations, and depressions which stand out clearly. When the iris becomes inflamed these markings are blurred and indistinguishable. These markings are mostly radially directed and are simply the blood vessels lying in the stroma and running from the ciliary to the pupilliary border.

The structure of the iris proper is made up largely of the numerous vessels running from the ciliary to the pupilliary margin. These vessels are enclosed in a thick connective tissue and surrounded by the branching pigmented cells which fill up the interstices between them. Near the pupillary margin is the sphincteriridis, a flat band of muscular fibres lying close to the posterior surface.

The color of the iris depends on the amount, quality, and proportion of the iridic pigment cells in the stroma and retinal layers. The retinal layers always abound in pigment, while the quantity on the stroma varies greatly. If the stroma contains little pigment the retinal pigment

†Read at the meeting of the Florida Medical Association at Tampa, Florida, April 16, 17, 18.

shows through and appears blue or gray. A little more pigment in the stroma and the iris begins to show its own brown color and the retinal pigment is concealed. An absence of pigment in the stroma and the retinal layers is found in the albino and the iris is a translucent red imparted from the blood vessels. Nearly all children are born with a steely blue iris which changes as they grow older. This is for the reason that the stroma pigment is scant at first and grows thicker with age. The amount of stroma pigment is proportionate to the amount of pigment in the skin: e.g. the dark races have a dark iris.

The ciliary body is the middle segment of the uveal tract and extends from the sclero-corneal juncture to the *ora serrata* behind. This organ is circular in shape and consists of three parts: the ciliary ring, the ciliary processes and the ciliary muscle which is the muscle of accommodation of "focussing muscle." This muscle is larger in far-sighted than in normal eyes and smaller in near-sighted.

The uvea is the blood carrying and supplying part of the eye, just as the function of the cornea and sclera is protective and the retinal part perceptive. There is such an abundance of blood vessels in the uvea that it consists almost entirely of them and hence from this fact its extreme tendency to inflammation is accounted for.

The sphincter pupillae is supplied from the third nerve and the radiating or dilating fibres of the iris receive their supply from the sympathetic. Thus atropine dilates the pupil and puts the ciliary muscle at rest by paralyzing the fibres of the third and stimulating the sympathetic.

The iris is the adjustable diaphragm interposed between the refractive media of the eye. It prevents too much light entering the eye which would dazzle and injure the sensitive retina, and it cuts off the marginal rays of light which passing through the periphery of the cornea and lens would, unless arrested, be irregularly refracted and dull or impair the clearness of the retinal image.

The contraction of the pupil is governed by the motor oculi nerve and stimulation of this nerve produces narrowing of the pupil as in the action of pilocarpine or eserine. Section or paralysis of this nerve dilates the pupil. The dilatation of the pupil is controlled by the sympathetic; irritation of this center produces dilatation of the pupil and paralysis causes contraction. The action of the pupil is spontaneous in adapting itself to light or other stimuli. The size of the pupil is constantly varying but always the pupils of the two eyes are exactly the same. Irregularity of the pupils is always a pathological sign. The ciliary body has a function in the visual act through the medium of the ciliary muscle which provides for accommodation. The choroid furnishes the pigment for the dark coating which is essential for the formation of a distinct image.

Inasmuch as the iris and ciliary body are so intimately connected, are supplied by the same blood vessels and the iris springs directly from the ciliary body and is truly a continuation of the same tissue, it is impossible to conceive of an inflammation limited strictly to one portion or another. It must also be borne in mind that the choroid too is a portion of the uveal tract and adverse conditions affect it similarly and simultaneously as they do the anterior portion. Strictly speaking, the broader term, uveitis, more fittingly describes such an inflammation. However, as one particular portion of the uvea may bear the brunt of the inflammatory process, it being centered there so to speak, we apply the names, iritis, cyclitis, and choroiditis accordingly as these particular features predominate. Thus if the predominant feature be iritis there is always a more or less amount of involvement of the ciliary body, and vice versa, still for practical purposes the symptoms may be separately described.

Hyperaemia is always the first stage of inflammation of the iris and ciliary body and resolution may ensue here or the process proceed to the later stages. Congestion or hyperaemia precedes every case of iritis or cyclitis and a good many cases are seen which go no further. It may be coincident with or a symptom of inflammation in some of the other ocular tissues as choroiditis, scleritis, or corneal ulcer. Hyperaemia is manifested by changes in color, sluggishness of response to light, accommodation and mydriatics. The iris becomes dull and the clearness of the markings obliterated; the blue or gray iris becomes greenish in hue and the brown, a dirty reddish yellow. If the disease proceeds no further than this stage no synechiæ form, as there is no exudate. Pain following close work, ciliary and choroidal congestion denotes involvement of the ciliary body. Complete physiological rest, secured by the use of dark glasses and the instillation of atropine, removal of the general or local cause and correction of refractive errors is the line of treatment.

True iritis, in addition to the foregoing, is attended by exudation into the stroma of the iris and the anterior and posterior chambers. Exudation into the stroma of the iris causes its swelling and thickening by the infiltration of round cells. The discoloration is more pronounced than in simple

hyperaemia, the pupil is contracted and the iris reacts but little to light and accommodation. The aqueous humor is turbid and partially opaque from suspension therein of cells, and the pupil appears gray instead of black. The exudate suspended in the aqueous gradually sinks to the bottom of the anterior chamber, producing hypopyon. The cornea and lens appear cloudy by reason of the deposit of cells upon their endothelium. If these exudates become organized a membrane is formed across the pupillary margin which results in occlusion of the pupil, a most serious complication and means great impairment of vision. If only a portion or portions of the pupillary margin adhere to the lens the condition is synechia, singular or plural as the case may be. As the posterior or retinal layer is the part so attached, and as the pupil is contracted at the time of such attachment, if atropine be instilled the free portions of the iris retract strongly, the attached tags jut into the pupil and if recent or not too firmly fastened give away, leaving behind spots of retinal pigment upon the lens capsule which remain for all time and are invincible proof that iritis once existed. If the iris be attached to the lens capsule, at the entire circumference of the pupillary margin, it is complete or annular posterior synechia and shuts off the anterior from the posterior chamber, exclusion of the pupil, a grave condition which results, if untreated, in glaucoma and blindness.

Serous iritis is but the usual term under which cyclitis is described. This is the condition where the ciliary body is the chief seat of inflammation. The iris not being involved usually to the extent of exudation, synehiæ are not to be feared.

Exudation from the ciliary body takes place into the anterior and posterior chambers and into the vitreous. Masses of cells held together by fibrinous exudate adhere to the posterior surface of the cornea. Such deposits upon the cornea viewed collectively have the shape of a triangle, the larger particles at the bottom of the anterior chamber and the smaller at the top. This is the so-called condition, Keratitis punctata, which is a misnomer when so applied. While these deposits were formerly supposed to be in the cornea itself it demonstrates easily their true status. When the cornea is incised a great many of these deposits are washed away as the aqueous escapes. The greater portion of the mass of exudate is deposited in the posterior chamber and if very extensive adhesions are likely to form posterior synechia.

Exudation into the vitreous, if of large amount and situated in the visual line, causes great loss of sight. The tension of the eye is usually increased, especially if the ciliary body be the chief seat of the inflammation; always more so than where the iris is implicated principally.

The subjective symptoms of both iritis and cyclitis are severe pain, lachrymation and photophobia. The pain in acute cases is intense, and not only in the eye but all the surrounding parts, especially the region of the eyebrow. The pain is usually worse at night when the individual is in a recumbent position, and in severe cases of iritis and cyclitis is well nigh intolerable. Vision is always diminished and the presence of a bright light or an effort at accommodation, by taxing and straining the inflamed structures, is very painful and causes a copious flow of tears. Iritis is probably one of the worst and most trying diseases to treat both from the standpoint of the patient and the physician. Acute cases run a severe course —usually from one to two months is the average length of time if there is much inflammation. Chronic cases show but slight symptoms of inflammation and may run on for years. Relapses are common and are probably due to a renewal of the original cause rather than to any mechanical effect of synechiae. Posterior synechiae were formerly considered a great source of danger, and operation for the separation of such advised. Now the rule is to let alone unless there is exclusion or occlusion of the pupil. Mild cases, if seen early, have a favorable prognosis, and if the pupil be kept open with atropine complete resolution may be expected. Even if adhesions have taken place the pupils may be fully freed, leaving behind the pigmentary deposits on the capsule of the lens which are sometimes annoying as floating specks before the eyes. Hypopyon and other exudates usually disappear completely by absorption, likewise slight opacities in the vitreous.

In most cases of iritis and cyclitis permanent sequelae remain and the most common of these are posterior synechiae. These may range from one or two attachments to complete occlusion or exclusion of the pupil. In prolonged cases or in repeated attacks we may have an atrophy of the iris which is manifested by thinning of the pupillary edge, absorption of the pigment and disappearance of the markings. Such an iris is very friable and an operation such as iridectomy is very difficult. Atrophy of the eyeball itself may follow where there is a great mass of fibrinous exudate enveloping the lens and ciliary body. Shrinking follows as resolution goes on, ending in detachment of the retina and vitreous. The tension of the eyeball gets lower and lower, the cornea becomes opaque and flattened, and the eye blind. Such a blind eye frequently becomes

painful, especially if the degeneration takes on a calcareous form. Phthisis bulbi is the condition where complete shrinkage occurs. Cataract may occur on account of disturbed nutrition of the lens, particularly so where the ciliary body is greatly involved.

Iritis and cyclitis may arise as a primary process, but in the majority of cases it is secondary to some general condition or disease, and in these circumstances the trouble is usually bilateral. In primary cases where the trouble arises from some local cause the affection is usually confined to one eye. Iritis and cyclitis may arise secondarily from some inflammation of the neighboring structures. We use the term iritis, cyclitis or irido-cyclitis according to the structure chiefly involved.

Syphilis, rheumatism and traumatism are the chief causes of this trouble. Syphilis is responsible for at least 50 per cent. of all cases of iritis. It is a secondary lesion appearing shortly after the first eruption, and it occurs in 5 per cent. of all cases of syphilis. The appearance of nodules or spots of a yellowish red color is regarded as characteristic of this trouble. Dr. M. F. Coomes, of Louisville, says from the observation of many cases of this kind in his clinic he regards this symptom very rare indeed, and has seen it but few times in an experience of fifteen years. These spots or nodules are situated at the papillary or ciliary border and never between. Personally I have observed them in nearly all cases of syphilitic iritis. I believe they are more noticeable where the iris is dark in color. Gumma of the iris and ciliary body may occur in the later stages of syphilis and attain such great dimensions as to bring about the destruction of the eye.

Iritis may be a manifestation of hereditary syphilis and is usually associated with interstitial keratitis. The choroid is involved in about 50 per cent. of cases of syphilitic iritis and cyclitis, and frequently the retina and optic nerve. The diagnosis may be arrived at positively only by the demonstration of syphilis in other parts or by the physiological test.

Scrofulous iritis occurs in anaemic and scrofulous children and resembles the hereditary syphilitic form—here the absence of interstitial keratitis is significant. Tubercular iritis is a rare trouble and usually takes the form of miliary growths or large tumors.

Rheumatic iritis occurs in individuals with a rheumatic or uric-acid diathesis. It is characterized by inflammation with little exudation and great tendency to recur. The insidiousness of its onset is peculiar to rheumatic iritis. Specks before the eyes, easy ocular fatigue and general uneasiness are the first symptoms. It generally takes from a week to ten days for an attack to develop fully and is not so apt to be bilateral as syphilitic iritis.

Gonorrhoeal iritis arises where there is a systemic infection from gonorrhoea, and nearly always there are affected joints where it occurs. Iritis is sometimes seen in connection with certain fevers and variola. It also occurs sometimes in diabetics.

Idiopathic iritis is where we can assign no exact cause and is commonly attributed to "cold." In the acute form it is generally unilateral. The chronic form runs a long course, and where the patient is of advanced age and the nutrition defective it slowly progresses until blindness results. Traumatic iritis may result from wounds or injuries of any kind, especially those of a perforating character.

Iritis is one of the few diseases of the eye where a dark room is absolutely essential. All use of the eyes must be forbidden. The master remedy is atropine first, foremost and all the time, from the beginning to the end. The tendency is to use the drug with too much caution, in too weak solutions or too seldom. An inflamed eye is far less susceptible to its influence than the normal one. The reason is that endosmosis through the cornea is hampered because this structure is already surcharged with fluid and the tension of the eyeball is slightly increased. Even when it has entered the anterior chamber, the congestion and the adhesions oppose its effect. For these reasons a one per cent. solution should be instilled until the desired effect is obtained. After the pupil has dilated the atropine should be still continued but instilled less frequently, once or twice a day being sufficient. It should be dropped preferably into the outer rather than the inner canthus, the head being held in such a position that it will be difficult for the solution to flow toward the puncta and the patient's finger applied, with slight pressure, over the lachrymal sac to prevent its entrance as much as possible. Dryness of the throat is no contraindication for its use and it should be discontinued only when the symptoms become alarming, such as feeble pulse, nausea, fainting, prostration or delirium. A hypodermic injection of morphine speedily quells any such symptoms and as soon as they subside the atropine should be continued. Atropine dilates the pupil, diminishes the amount of blood in the vessels, the sphincter and the ciliary muscles are paralyzed and these inflamed structures put at rest. Recent synechiae are torn loose and when the pupil is fully dilated its edge is not in contact with the lens, and other adhesions are prevented. By the simultaneous employment of cocaine

in obstinate cases, the effect of atropine is heightened. The use of solutions of adrenalin reduces congestion, not only in the external vessels, but those of the iris and ciliary body as well.

For the relief of pain, hot compresses should be liberally and continuously applied. Hot applications not only relieve pain but favor and aid metabolism and hasten recovery. If the pain is very severe the natural or artificial leech should be applied and repeated as necessary. The natural leech is repugnant but more efficient. The artifical leech I find difficult to extract enough blood with, and about one to two ounces should be removed at a time. This greatly diminishes the pain and inflammation and frequently a stubborn pupil will yield to atropine for the first time after this procedure. Dionin is frequently very useful here, as well as in corneal ulcer, as a pain reliever. Instead of simple hot water, a hot infusion of poppy heads may be used and the compresses wrung out of this and applied.

In the beginning of every case, calomel in one-fourth grain doses should be administered until free purgation results and this followed by some good saline for its depleting effect. Kutnow's Powder is very agreeable to take and is certainly very efficient in its action, and this or a similar preparation may often be prescribed daily throughout the case with good results. The lightest and simplest diet should be insisted upon.

Owing to the difficulty in distinguishing the different forms and the causes thereof and the danger of delay, in all cases it is necessary to promptly commence some vigorous treatment. Inasmuch as syphilis is such a prominent etiological factor, in a doubtful case mercury should be administered to its physiological limit. It is in syphilitic cases that we have the most favorable prognosis, as they generally respond nicely to energetic treatment. As to the particular form mercury is to be administered in, it may be protiodide, mercury with chalk, by inunction, or hypodermatically. As it is desirable that the patient be gotten under the influence of the drug as quickly as possible, inunctions of blue mass are particularly recommended. I have used Cypridol, a proprietary preparation of the biniodide in oil, hypodermatically, but not with gratifying results. My objection is that it takes entirely too long to get a patient under its influence. Also larger doses are required than the proprietors recommend. An eight minim injection every other day would be hopelessly ineffectual and useless.

After a course of mercury, iodide of potash is needed, with or without bichloride of mercury. In addition to the foregoing, in this region where the malarial cachexia is so frequently encountered, quinine, Warburg's and arsenic are often required.

Where rheumatism is the underlying cause, the administration of the salicylates of strontium or sodium, and wine of colchicum, is necessary. In gouty subjects, lithia, urotropin or similar anti-uric-acid preparations should be given and the diet properly regulated. In hereditary syphilis the treatment should be tonic as well as specific and bichloride of mercury combined with the use of syrup of the iodide of iron, cod-liver oil or syrup of hydriodic acid, employed in the treatment of these little patients. In the rarer diabetic form arsenic is of service, also the solution of arsenic and gold. In gonorrhoeal iritis, treatment of the urethra is the keynote of success and the iris keeps step with conditions there.

In the treatment of traumatic iritis, the same general rules apply just as they do to wounds of any other structure and the iridic inflammation subjected to about the same local measures as obtain in other forms. For the first day or two cold compresses should be applied instead of hot, and leeches and atropine used.

In the latter stages of iridic inflammation after the acute stage has subsided, and in chronic or relapsing cases, I have found the use of the galvanic and faradic currents singly or combined to be one of the most valuable procedures at our command. Mild currents, applied daily for five to ten minutes, gives most gratifying results and materially shortens the attack.

Iritis is often cured with a perfectly normal pupil, but, also synechiae frequently remain. Narrow and isolated synechiae may often be ruptured by the use of atropine combined with cocaine or the alternate use of mydriatics and myotics, but such procedures should not be attempted until the attack has been subdued. If they cannot be torn loose by these means they are best let alone. Annular posterior synechiae, with or without occlusion of the pupil, demands iridectomy to restore communication between the anterior and posterior chambers, or glaucoma surely sets in. A case of subacute irido-cyclitis, or rather general uveitis. may continue so long as to render enucleation necessary to terminate it. Sometimes a protracted case may admit of a broad iridectomy being done, which proves to be the salvation of the eye. For shrunken blind eyes in which repeated attacks of inflammation occur, enucleation is the only thing.

Summed up in a few words, where the case is taken in hand early, prompt and vigorous treatment instituted, and the patient obeys instructions faithfully and fully,

the prognosis in most cases of iritis is favorable. Here a clear pupil, absence of synechiae and complete return to normal conditions is not too much to expect. The greatest trouble is to keep the patient hopeful and satisfied. Too often they expect too much; from their point of view every affection is just a case of "sore eyes," and after a few days or a week or so and the eye still in bad condition they get careless, discouraged or neglectful, or thinking results are not what they should be, change physicians. The patient should be impressed that his trouble is a grave one and that it will run a protracted course, that he will suffer from pain, and is likely to become discouraged, but that perseverance is his only hope and the salvation of his eye.

In conclusion, I wish to emphasize the importance of an early diagnosis by the family physician and the prompt institution of treatment, both general and local. The differentiation from other troubles which are likely to confound him is not so hard if only a little care is taken. If there is any doubt as to the nature of the trouble, be on the safe side and begin treatment as if it were iritis, shift the responsibility and refer the case to the oculist. In conjunctivitis it is the superficial vessels that are injected, the lids are usually stuck together on awakening and mucus and muco-pus present to a greater or less degree. In iritis the eyes are free from mucus and pus, the lids do not stick together during sleep, it is the deep, straight ciliary vessels that are injected. In conjunctivitis there are no changes in the iris, which reacts promptly to light, and there is more of a feeling of discomfort as from foreign bodies than actual pain.

In corneal ulcer, illumination with a condensing lens or reading glass from the side reveals the ulcer as a grayish spot on the cornea and the iris is unchanged. In iritis the cornea is clear. Observe the iris carefully under the same oblique illumination and compare with the other for changes if only one eye is implicated. See if the pupil responds to light promptly as it should. In the various forms of keratitis it is entirely in the cornea that the trouble lies, and it will be revealed by the same mode of examination.

The salient symptoms just described should be sufficient for diagnostic purposes, yet it is common to find a case of iritis mistaken for some other trouble. Most frequently it is confounded with some form of conjunctivitis. So many variations being found in the different types of iritis, it precludes the formulation of absolutely fixed rules for the differential diagnosis.

Intestinal Intussusception.*

By Dr. M. G. Chancey, Tampa, Florida.

My paper is limited to a somewhat detailed report of a case and a plea for prompt surgical interference. I believe in exercising diligent effort to effect reduction by non-surgical remedial measures for a period not exceeding 24 hours, and though I may be considered a little bit radical in my opinion, I shall insist that the physician whose conservatism causes him to defer surgical aid much beyond the 24-hour limit is by minutes and hours doing a very dangerous practice.

Patient, W. S., boy, 5 years.—June 20th, 6 o'clock, a. m., began holding hands over umbilical area, evincing discomfort and complaining of sick, crampy pain, which pain was continuous but periodically more painful. After about three hours of similar suffering it occurred to parents minds to give a dose of castor oil and turpentine, which together with his breakfast was promptly vomited. Anorexia was present throughout but vomiting did not occur but once again, which was about 6 hours later, when it was thought advisable to administer a second dose of castor oil and turpentine. By noon 5 or 6 attempts had been made at defecation, but mucus nor blood did not, and never did, occur in visible traces in any of the evacuations.

The continuous pain and greatly increased abdominal distention caused medical advice to be sought. The child was brought to my office about 7 o'clock, p. m., presenting a ghastly pallor; large glassy, whitish eyes; a weak, rapid pulse; subnormal temperature; and an extremely large, long, pendulous belly, which evinced a tympanitic note superficially, but under firm, digital pressure the percussion note faded into dullness. The patient complained some of pain of a sickish, crampy character and faintish feelings.

The history elicited the occurrence of an accident while playing in the front yard in the early morning, the nature of which was a fall against a picket fence, the cause of which fall was a race down a springy plank gaining a momentum that prevented stopping before he struck the fence and from which accident his discomfort dated. Previous health perfect.

I made a diagnosis of internal hemorrhage possibly, intussusception probably, and shock certainly. I prescribed that patient be promptly returned to his home and to bed, that the foot of the bed be elevated, artificial heat applied to his body, teaspoonful of brandy given every 3 hours, and an

*Read before the Florida Medical Association at Tampa, Florida, April 16, 17, 18.

enema of a pint of normal saline solution be given every three hours.

At 8 o'clock a. m. I found symptoms similar to the night before except temperature was 97 instead of 98—more evidence of exhaustion, and a more enormously distended belly. I ordered patient placed in an exaggerated Trendelenburg position and practiced abdominal massage, while at the same time by means of a colon tube and a fountain syringe under 8 ft. of pressure a quart of normal saline solution was introduced with the hope of distending the bowel and possibly reducing the obstruction. The solution was discharged unchanged in its visible composition and the process was repeated with like effect.

I advised a surgeon immediately in consultation, assuring them that in my opinion the lesion was intussusception and an operation should be done for its relief and done promptly. My friend Dr. J. B. Wallace, who had done some very successful major surgery in the family, was naturally enough suggested. We saw the patient at 3:30 p. m. He promptly concurred in my opinion as to the necessity of operative measures, but for the reason of shock and unfavorable operative environment suggested, while preparation for operation was being made, the effusion into each axilla of a pint of normal saline solution and 1-60 grain of strychnine every three hours hypodermatically, to combat shock, and possibly cause some reaction. The suggestions were executed but reaction did not occur, on the contrary the shock grew greater, gradually fading into collapse, and the patient expired at 7 p. m., thus making the operation unnecessary at 36 hours.

The autopsy revealed the lesion in the ileum 15 inches above the ilio-cecal junction which 15 inches of gut constituted the intussuscipiens and eighteen inches of the continuous ileum the intussusceptum, all of which later together with its mesentery was congested, strangulated, and a nuckle of 4 inches of the most dependent portion necrotic.

Therefore, I have to conclude: That had an operation been performed not later than 30 hours from inception shock would not have interdicted it and the patient need not have died.

That had operation been done in this period of time the strangulation had not advanced beyond the ability of the tissue to regain its vitality.

That if the surgeon is called later than 36 hours he may, and not without good reason, expect to have a knuckle of intestine to excise and tie off in sections the corresponding mesentery, and to do an end to end anastimosis.

That he may expect and prepare for such an emergency in this type of intestinal obstruction at whatever time he may be called, but if he can with accuracy estimate the duration of the lesion not to have exceeded 24 hours he can bring a sigh of relief and feel that he is in the period of Election when his work is greatly simplified and the patient's chances for recovery are greatest. That failure to early diagnose these conditions is the cause of the high mortality rate. That diagnosis is delayed in some of these cases because of the absence of one or more of the regular symptoms of this lesion, viz: obstinate vomiting and discharge of blood and mucus in the evacuations. That the percussion note at first tympanitic fades into dullness with the advent of shock and when shock is profound the succussion splash is visible and palpable. That when this lesion is associated with a history of abdominal injury, the physician is liable to mistake the cause of shock for internal hemorrhage, and while intra-abdominal hemorrhage undoubtedly exists, autopsy may reveal the hemorrhage to have been intra-abdominal, of course, but intra- instead of extra-vascular. That the administration of morphia is justified only after the physicians diagnosis has been as nearly as possible confirmed by the surgeon, at which time if given promptly will prove a life saving agent by combating shock until the surgical treatment is effected. That the use of purgatives can do naught but harm and that there are but few instances in medicine in which the physician's hands are more completely tied or that give the physician so excellent an opportunity to appreciate his surgeon Brother.

The Opsonic Theory.*

By L. B. Newell, M. D., Charlotte, N. C.

Mr. President and Gentlemen:

As my subject I have chosen "The Opsonic Theory" and I do not think I need apologize for the introduction before this body of a subject which is of so vast an interest to the whole scientific world. Important and far-reaching as is the discovery, which gives title to this paper, it is perhaps not too broad an assertion to venture the opinion that few of us have really paid enough attention to it to find the real meaning of the Theory. That it is important is evidenced by the prominence given the subject during the last few months in scientific publications throughout the world. The object of this paper, therefore, is to call to your attention one of the great discoveries of modern times and to state the subject as

*Read before the Mecklenburg County Medical Society, Charlotte, N. C., April 2nd, 1907.

clearly as possible, without the technical verbiage of the laboratory, so that the physician may understand whether he completed his medical college course last May or twenty years ago.

The immortal Pasteur realizing the immensity of the subject of the causation of disease by germs and seeing the effect of the use of vaccine upon small pox, uttered the prophecy that the day would come when we would treat all bacterial disease by vaccination.

Nature takes ample care that we find out her secrets only after an infinity of work, yet as the years go by we begin to realize more and more how prophetic were the words of Pasteur. Step by step biologists, bacteriologists, pathologists and therapeutists have been drawing nearer the goal, each investigator profiting by the errors of his predecessor—each coming a step nearer the truth.

Years ago Metchnikoff promulgated his theory of *Phagocytosis*. Since his time it has been known that when bacteria enter the tissues of the body the system at once endeavors to combat their invasion by sending vast numbers of white blood cells to meet the enemy. To that mysterious power of attraction which exists between the invading bacteria and the leucocytes, or *phagocytes*, we have applied the term *chemiotaxis*. The phagocytes have the power under certain circumstances of picking up the microbes, ingesting them and killing them. Metchnikoff, believing that the leucocytes were the only active elements in the process of phagocytosis, held that the fluid portions of the blood was merely an indifferent medium. Others taking up the work found that the serum is far from being inactive or indifferent. They found that the invading bacteria are in many cases victorious and overcome the defensive leucocytes. And this led to the question why either the bacteria on the one hand or the white blood corpuscles on the other are not always victorious. Attempts to answer this have given rise to many theories and much theorizing. Over in one of the great English hospitals there is a man, Sir A. E. Wright, who has asked this question and has answered it with such finality that the scientific world has almost accepted it as proved. He has found that there are in the blood serum or plasma certain substances which act upon bacteria in such a way as to prepare them to be ingested and destroyed by the leucocytes. Without this substance or these substances the leucocytes are powerless. To this power, substance or property of the blood has been applied the term *Opsonin* derived from the Latin word *Opsono* meaning "I prepare food for" or "I prepare for dinner." For our purposes it matters little what the properties and characteristics of opsonins are. Apparently there is a different opsonin in the blood for each form of bacteria. It is a fact readily observed that an individual often succumbs to one infection more readily than to another; likewise the same individual at one time seems immune to a certain bacterial disease, at another he quickly falls a victim to the same affection. According to our opsonic theory we would explain these facts by the varying degree of opsonic power of the blood. Instead of saying that the infection is more virulent or that his vital resistance has been reduced we say the opsonic index is low.

It is claimed by the discoverer that there actually is a variation at different times in the opsonic content of the blood. In other words the blood of an individual will be stronger or weaker in opsonic power, or the blood of the same individual will be at different times stronger or weaker in opsonic power as regards each disease germ.

That the leucocytes are powerless to fulfill their function as phagocytes without the help of opsonins is according to the advocates of the theory entirely established. Without describing in detail the methods by which this is proved it is sufficient to say that the leucocytes isolated by appropriate methods and mixed with living germs in a liquid saline medium do not attack bacteria; but if blood serum be added to the mixture of leucocytes and bacteria the phagocytic activity begins at once. This undoubtedly proves that the serum contains some substance which enables the leucocytes to attack and destroy the microorganisms.

Wright has originated a very ingenious method of determining the opsonic power of the blood by comparing the opsonic potency of the blood of the individual under observation with that of the mixed blood of a number of normal persons. The degree of opsonic power as determined by this method has been termed the *opsonic index*.

Suppose a patient is suffering with an infectious disease like tuberculosis, acne, or ulcerative endocarditis! In such conditions why are the leucocytes unable to prevail in their battle with the invading germs? It is because the opsonic index is below normal or those substances which enable the leucocytes to fight the germs are diminished. The problem therefore naturally presents itself: increase the opsonins, raise the opsonic index to normal or above normal and the defenders will prevail!

For obvious reasons any description of laboratory processes in a paper of this kind is entirely out of place, but the practical application of this theory is about as fol-

lows: An individual is about to undergo treatment for infection by a certain germ. His blood is tested for its opsonic index which indicates whether or not his vital resisting powers are above or below normal. If below normal he is given a hypodermic injection of a specially prepared culture of the germs which cause his disease—the micro-organisms having previously been rendered harmless by heat. In other words the patient is vaccinated. As a result the opsonic power is at first diminished, but this is invariably followed by a positive increase. This vaccination is repeated at suitable intervals, as indicated by frequent blood examinations; the object being to keep the blood serum in a condition to prepare the bacteria for destruction by the white blood cells—that is, in as high a state of opsonic power as possible.

This principle is being put to very successful practical application in staphylococcic infection of the skin such as acne and boils; in tuberculosis of the joints, glands and even in consumption; empyema due to the presence of the pneumococcus; ulcerative endocarditis caused by the streptococcus and in various other forms of specific bacterial diseases. *It is not applicable except in those diseases of which the specific causative germ is known.*

Although this method of treatment in its present state is beyond the reach of the average physician simply because of the refined and tedious laboratory processes necessary, it is not trespassing far beyond the bounds of probability to say that this principle will hereafter dominate the progress in therapeutics of bacterial diseases. Yet a good deal must be done by laboratory workers towards simplification before the application of opsonic therapy shall have come within the domain of the average practitioner.

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Scopolamine or Hyoscine in Surgery and Obstetrics.

By Emory Lanphear, M. D., Ph.D., LL.D., St. Louis, Mo., formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of Surgery in the St. Louis College of Physicians and Surgeons.

In Charlotte Medical Journal April, 1906, there appears a little note on this subject beginning thus:

"Albert Laurendeau in a recent work on this subject advises a dose of 1.50 grains of the hydrobromate of scopolamine combined with 1-5 of a grain of morphine to be given to adults by means of hypodermic injections in the lower extremities. This injection may be given, if necessary, three times in all at hour and a half intervals."

Now if this advice be followed there will be a series of fatalities far more horrible than that already attributed to scopolamine; for the dose of this very uncertain and dangerous drug is one one-hundredth of a grain instead of one and a half grains as herein advised. Even from a dosage of one-hundredth of a grain, repeated three times at intervals of one and a half hours, many deaths have been reported. This arises not because pure scopolamine is a particularly dangerous drug, but because certain unscrupulous manufacturers put on the market an impure alkaloid of low laevorotatory power. Merck has many times called attention to the fact that a scopolamine to be safe and efficient should be chemically pure and of minus twenty degrees optical rotation; but many surgeons still believe that any kind of an alkaloid must be "pure" if put up by their favorite manufacturer of hypodermic tablets.

The truth of the matter is this: Scopolamine is made from scopolia atropoides; often contains atroscine or apoatropine—rendering it either unreliable or dangerous; is chemically identical with hyoscine and hence is used by certain manufacturing chemists as its equivalent—even though dangerous from impurities—why? Because it costs less than one-third as much as a chemically pure hyoscine made from hyoscyamus niger! Upon such little profits do our patient's lives depend.

To produce ideal surgical anesthesia and painless labor I have been using a tablet made by the Abbott Alkaloidal Company, of Chicago, consisting of

Hyoscine hydrobromide, gr. 1-100
Morphine hydrobromide, gr. 1-4
Cactin (from cactus grandiflorus) gr. 1-67.

For operations not very severe, give one tablet, hypodermically, two hours prior to the time selected for operation; repeat this from one hour to an hour and a half later,

so that at least one-half hour elapses from the time the second dose is given to the beginning of actual work.

Often two tablets are sufficient to produce complete surgical anesthesia. But if this condition does not exist, a few drops of chloroform (better than ether) should be used for purposes of relaxation and may be repeated at intervals as required. The amount needed is usually very small, a dram often being enough to keep the patient asleep for two hours.

For huge operations it is best to give one full tablet a little more than two hours before operation, a second one hour later, and a third just as the patient goes on the table. The third dose should, of course, not be given if two have produced the desired degree of narcosis.

During the action of the second tablet (almost invariably if a third is used) the respirations drop to 15 or 10, and sometimes to 6 per minute, as is the case in deep normal sleep; but as the pulse remains strong and firm, this (which is largely hyoscine-effect) should give no uneasiness.

The dosage for obstetrical work, as well as for anodyne effect is, of course, less than that for surgical. Here, half a tablet may be given as early in the first stage as the attending physician, in his judgment, deems it wise to respond to the call of the patient for relief. In fact, if the patient is irritable, nervous and restless, this becomes the best possible anodyne that can be given. Quieting the mother by lessening excitability conserves energy and adds comfort as well as strength to nature's efforts, thus hastening labor, and rendering it more nearly normal.

This half-dose may, and should, be repeated every two to four hours, as needed, half a tablet during the first stage, another in the second stage, with a third (possibly a full strength) during the propulsive stage, especially if forceps delivery becomes necessary, is usually all that will be required.

While the patient may and should be allowed to "doze off" during the first and second stages, this should not be allowed in the third to the extent of retarding expulsion unless the forceps is promptly applied. Otherwise, as from delay from any cause, partial or complete asphyxia of the child may result.

I have employed this form of anesthesia many hundreds of times, with the most perfect satisfaction, save in three cases, and without an alarming accident of any kind. The first time one uses it there may be some anxiety felt; but after a few trials other surgeons will feel as I do. I would not go back to chloroform or ether anesthesia (especially in abdominal surgery) for any consideration—the effects are ideal in every particular.

But the drug must be pure: if scopolamine is used it must be of guaranteed purity (Merck's—20 degrees only) and in doses of one-hundredth—not the lethal doses advised by Laurendeau in the note mentioned; possibly a printer's mistake in figures. Better: make use of the Abbott anesthetic tablet above noted which is absolutely reliable, apparently safe and certainly satisfactory.

Stenosis and Artresia of the Cervix.—Jayle (La Presse Med.) states that the cervix may become stenosed after one or more accouchements, or complete artresia may take place, either soon after labor or many years following it, at the time of the menopause. Following immediately after labor this condition is exceedingly rare. In some cases the stenosis is the only lesion, the cervix looking normal with the exception of the absence of a normal os, the orifice being entirely obliterated. In most cases there has been a very large laceration and the os is hidden in a mass of cicatricial tissue, so that the os and even the cervix itself is unrecognizable. The contraction or obliteration may occur only at the menopanse. There are almost no functional symptoms of this condition if it occurs at this period. Earlier in life there may be as a result pyometra, or hematometra, or the cervical obstruction may not be able to resist the pressure of the menstrual flow and menstrual pain may be followed by the appearance of the flow. It is generally accompanied by metritis, especially of the cervix, with dysmenorrhea. Sterility is the rule, but is not invariably present. When the cervix is neither torn nor deformed it is indurated, conical, and has only a small depression for the os. When it is deformed touch may not give at all the ordinary impressions of a uterus. The pathogenesis of this condition is that of infected wounds of the cervix and is easily explained. When there has not been any infection it is difficult of explanation. It is necessary that the mucosa should have been destroyed in some manner, as by caustics applied to the uterus, or amputation of the cervix. In some cases there exists an individual predisposition and this is the case, especially in women with utero-ovarian diseases. It occurs also in kraurosis vulvæ. After the menopause it is favored by the normal atrophy of the uterus. Treatment is by dilatation, electrolysis or plastic operation.

Infantile Scurvy.—Frankel (Munch. med. Woch.) records twenty cases of infantile scurvy or Moller-Barlow's disease,

Most of the cases appeared in the spring of the year and continued during the warm months. Two-thirds of the cases were under one year of age, while the rest occurred in the second year. They were among the poorer classes of society. The typical symptoms of hemorrhages, especially about the gums, pain on movement, and swelling of the joints are not always present, one or more of them failing to appear in many cases. Hemorrhages about the teeth occur only in children who already have teeth. Hemorrhages may occur on any of the mucous membranes, or on any portion of the skin. They are common on the eyelids and the conjunctiva. The author has seen them on the mucous membrane of the intestine. Bloody urine is common, indicating hemorrhages of the kidneys. Pallor of the skin, lack of appetite, disinclination to active or passive motion, and transitory rise of temperature are the symptoms commonly observed in these cases. The alterations in the bones are characteristic of the disease, especially those of the ribs and extremities. The alterations are in the cartilage at the ends of the bones, where there forms a homogeneous ground substance rich in cellular elements of spindle or star shape. The growth of young bone is delayed and the bone is much weakened by thinning of the outer shell of bone and poor formation of bony trabeculæ. There results a bone that is fractured by the slightest traumatism, or even by the normal muscular action. The ribs are frequently the seat of bending or fractures, and the sternum may either sink in or be pushed out, giving a typical deformity of the chest. Such fractures result in subperiosteal hemorrhages which may give a sensation of fluctuation when the bone is palpated. Small hemorrhages, which are not easily recognized, are much more common. These are noted later as spindle-shaped or nodular swellings on the ribs or long bones, which resemble the deformities of rachitis. Next to the ribs the diaphyses of the long bones of the extremities are most often altered. According to some authors the hemorrhages are the result of a hemorrhagic diathesis accompanying the disease. The author has found that the changes in the bones occur even where the microscope shows no traces of hemorrhage in the bone. The author says that the hemorrhage is rather the result of the poor state of nutrition of the bones resulting from the disease. The changes in the bones are never of a diffuse character, but occur only in certain locations. He says that this disease is a distinct morbid entity, not the result of a hemorrhagic diathesis, and produces a distinct type of malnutrition. Combined with it may be a catarrh of the intestine that is a predisposing cause. The Rontgen rays are of great value in recognizing the characteristic bone changes of the disease. There is a broader shadow in the X-ray picture than in the normal one. Under appropriate dietic treatment there is a resorption of the abnormal tissue and new production of bone, and the deformities are reduced and disappear without surgical interference. The disease is not the direct cause of death, but the patient dies, when death occurs, as a result of some intercurrent disease.

Nasal Tamponing in Nosebleed.—Hauselmann (Monatssch. f. Ohrenkeilkunde) in protesting against the widespread employment of nasal tampons in the treatment of nosebleed, either of accidental or of operative causation, says he has obtained much better results from the applications of a mixture of 1 part of perhydrol and 9 parts of water. Nasal tampons not only close up the air passages, but in many instances, when infectious foci are present in the nose, pus may be forced into the adjacent sinuses and thus give rise to severe complications. A rapid diminution in calibre of the bleeding vessels, such as may be obtained by the use of adrenalin, is not satisfactory, and he believes that the thrombin-like action induced by perhydrol (hydrogen peroxid Merck, 30 per cent. by weight, 100 per cent. by volume) meets the condition better than any other form of medication.

Hematemesis in Organic Nervous Diseases.—Neumann (Deutsch. Ztschrft. f. Nervenheilk) mentions the extreme rarity of hematemesis in the gastric crises of tabes. Among 105 cases with gastric crises from the literature, only two presented positive bloody vomit. In the case described by Dr. Neumann, attacks of cholelithiasis existed together with the gastric crises; the vomiting was uncontrollable and persisted for several weeks. He accounts for its occurrence simply by mechanical conditions, due to an enormous rise of blood pressure. Complications of organic affections were absent, such as gastric ulcer or cancer, hemophilia, varicose veins, aneurisms, thrombosis of the portal system, etc.

The gastric hemorrhages in the gastric crises of tabetic patients are referred by the author to mechanical influences rather than to trophic disturbances or complications. These hemorrhages from the stomach are comparable to the cutaneous ecchymoses observed in the crises of tabes.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

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On Thursday morning, April the twenty-fifth, at 7:00 o'clock, at the First Baptist Church, Kinston, North Carolina, was celebrated the marriage of Dr. James Marion Parrott to Miss Lottie, daughter of Dr. and Mrs. Henry Tull. Both are well known throughout the State. Dr. Parrott needs no introduction to the medical profession; for he stands among the first. The Journal offers its congratulations and happy felicitations and would express the sincerest wishes that all life sweetness and goodness be bestowed upon Dr. Parrott and his bride.

PARRY'S DISEASE.

Opinion seems pretty well divided as to the best method of treating exophthalmic goitre, Graves' disease or Parry's disease as it should properly be called, since Parry described it ten years before Graves. There are advocates of operative treatment, advocates of non-operative treatment and those who would make surgical intervention a last resort. Among the non-surgical methods the most popular have been the administration of arsenic, potassium iodide, bromide of quinine, sodium phosphate and intestinal antiseptics; electricity in the form of faradism and galvanism and the X-ray, radium rays, and now there is a constantly increasing advocacy of the so-called serum treatment. The theory of the pathology of exophthalmic goitre most generally accepted is generally credited to Moebius, viz.: that the symptoms are caused by an excessive secretion of the thyroid gland. Facts which favor this view are the enlargement in most cases of the thyroid; the cure of some cases by excision of the gland and the experimental observation that the administration of thyroid in sufficiently large doses gives rise to most of the characteristic symptoms. With this theory as a basis the whole tendency of the work on exophthalmic goitre is to diminish this excessive secretion or to neutralize its effects.

Since 1895, when Ballet and Enriquez first published an account of the favorable results following their use of the serum of dogs from which the thyroid had been removed, there has arisen a number of workers in this special branch of serum-therapy. In 1901, Moebius described the use of serum of thyroidectomized sheep—to which serum the name *antithyroidin* has been given. Schultes. Lepine, Murray, Kuh and Waterman have been among the most active and prominent workers along these lines. These authorities all find that the sheep and goat furnish serum most suitable for inoculating the human subject. Most of those named above report favorable results—a few cures and a good many cases of improvement, with a number of relapses after treatment had been stopped.

Rogers and Beebe employ a somewhat different serum, obtained, however, from sheep which have been inoculated with the extract of the human thyroid. According as the extract of the normal or of the pathological gland is used for inoculation they obtain what they term normal or pathological serum. Their results with this method apparently are more promising than have so far been obtained from other methods of serum treatment.

Homel, following Burghart and Blumenthal, employed the milk of thyroidectomized goats as a neutralizing agent for the excess of secretion from the abnormal thyroid.

Various surgical procedures have been practiced for the relief of exophthalmic goitre. Abadie and Edwards advocated the removal of the cervical sympathetic ganglia—an operation which became popular because of the impetus given it by Jonesco and Jaboulay. More recently operation on the diseased organ itself has seemed to give better results. Mayo practices thyroidectomy, leaving behind enough of gland tissue to prevent the occurrence of myxedema. Curtis thinks that the only operations that need be considered are partial thyroidectomy and extirpation of the cervical sympathetic nerve and ganglia. It seems that most operators endeavor to leave the posterior capsule of the gland in order to preserve the para-thyroids and the recurrent laryngeal nerve from injury. Curtis advocates ligature of the thyroid vessels as a palliative measure and as a preliminary to extirpation of the gland. Mayo after operating with both local and general anaesthesia advocates the use of ether. Others favor local anaesthesia. Curtis believes the operation is best done in two stages, a preliminary ligation of the arteries being followed by the partial excision of the gland. The chief danger in these cases seems to be from acute thyroidism. This was most often the cause of death in the seventeen fatal operative cases among the total number of one hundred and thirty-six so far reported as having been operated upon for exophthalmic goitre by various surgeons—Kocher, Mayo, Schulz, Hartly and Curtis.

A favorite method is that employed by Mayo: The patient is placed in a reverse Trendelenburg position with a roll of gauze

behind the neck. A transverse incision is made through the skin and platysma myoides muscle across the center of the gland, the muscles which cover it being separated or, if it is necessary to cut them, they are severed as near as possible to their upper attachment to preserve their nerve supply and break the scar effect. The gland is removed, leaving behind the posterior capsule; great care is exercised to preserve the recurrent laryngeal nerve from injury and the parathyroids. As mentioned above sufficient gland substance is left to prevent myxedema. After the gland is removed the several muscles are carefully united with sutures. All exophthalmic cases are freely drained. The skin wound is closed by subcuticular stitch, great care being taken to unite the platysma to obviate spreading of the scar.

HEART BLOCK.

A great deal is seen in these latter days concerning a condition which has been termed "heart block." A considerable amount of very interesting matter is accumulating on the subject, and it really is worth the time of any scientific student to investigate it. Clinical phenomena apparently find a ready explanation on a strictly anatomical basis. What we know of the subject is the result of the work of anatomists, pathologists, physiologists and clinical observers, and is the outcome, not of a single brilliant conception, but of years of studies and observations gradually evolving what we now at least tentatively accept as the true theory. Without attempting to trace this evolution let us understand clearly first of all what is meant by the term *heart block*. Physiology has taught that the contractions of the heart begins at the great veins in the auricles, the impulse traveling rapidly through the auricle and after a distinct interval passes to the ventricle. We know this is the regular sequence—the auricular systole being closely followed by ventricular systole. How the impulse originating in or, at least so far as is known, beginning in the auricle passes over to the ventricle has been a point of contention—whether it is borne by nerve fibres or from muscle-cell to muscle-cell. However that may be when the impulse fails to pass on to the ventricle so that we have an auricular contraction which is not followed by a ventricular systole, it is termed heart block; *i. e.*, the impulse because of some hindrance is blocked in its progress and instead of following the auricular beat immediately, the ventricular beat is distinctly delayed or even entirely suppressed for one or more impulses—a distinct irregularity of rhythm resulting. As far as the prevailing ideas of heart block are concerned it makes a great difference as to whether the contraction wave is conducted from auricle to ventricle by nerves or muscle cells. Suffice it to say that observed phenomena indicate that muscle tissue forms the medium and that these phenomena are in accordance with the theories upon which the majority of physiologists explain the contractions of cardiac muscle. Something like ten years ago His, a celebrated German anatomist, described a bundle of muscle fibres, now called the "bundle of His." It consists of a narrow band stretching from the right auricle to the left ventricle through the auriculo-ventricular junction, appears in the septum just below the pars membranacea and divides into two branches to be distributed in the ventricular septum and in the walls of the ventricles. It lies just beneath the endocardium, being distinctly visible because of its pale color in some hearts. The fibres composing this bundle differ from others in their more embryonic appearance and in having a definite connective tissue sheath. Tawara describes the extensive distribution of these fibres to the papillary muscles and to the ventricular walls. His work on numerous animals including man has been confirmed by the exhaustive studies of Keith and Flack. In man it seems more difficult to recognize these fibres and their ramifications, but in the sheep it is very easy. It is this bundle which His and other investigators consider as the conduction path of impulses from auricle to ventricle.

Aschoff, of Berne, in whose laboratory Tawara has carried on his investigations, calls attention to the importance of lesions involving this bundle of fibres in explaining many cardiac conditions hitherto but imperfectly understood. Certain forms of hypertrophy and dilatation with heart failure have long been considered the result of a myocarditis, or a general inflammatory process in the heart muscle, due to the action of infective elements in the circulation. More recent investigations, however, seem to indicate that heart failure is, in a great many cases, the result of a lesion affecting the bundle of His rather than a generalized myocarditis.

Erlanger has shown that lesions affecting the bundle of His can produce all forms of cardiac arrythmia. Any lesion which makes pressure on this bundle, injures or destroys it, produces the symptom of heart block. Syphilitic gumma is mentioned by most writers in this connection. Fibrous changes may produce atrophy of the bundle, or sclerotic processes may occur.

The clinical picture of heart block was described many years ago successively by

Adams and Stokes, the symptoms becoming known as the Stokes-Adams syndrome. The three chief characteristics are the slow arterial pulse, the venous pulse being in excess of the arterial pulse, and attacks of syncope. It was before the bundle of His was known. Now in these cases of extreme irregularity of the pulse with stoppage of the heart that lasts sometimes for half a minute or even longer with gradual resumption of the slow beat and a venous pulse in excess of the arterial, the phenomena can be readily explained on the score of some process which interferes with the contraction wave by affecting the bundle of His.

However, there remains a great deal to be done in heart pathology with reference to these fibres. It is too often the case that enthusiasts overstep the bounds of reason and minimize the objections to new theories and discoveries. The highest faculty of the mind is the ability to distinguish between the false and the true. It therefore behooves us not to accept too quickly every new idea thrust upon us, but to study it and understand it and then, if we may, believe it. Heart pathology is by no means exhausted and it may be that the theories advanced as explaining heart block but opens a vaster field to which the future will give access.

THE ETIOLOGY OF PSORIASIS.

Constituting two or three per cent. of all skin diseases psoriasis is therefore not uncommonly met with by the general practitioner. It is rare under five years, although Crocker, Stelwagon, Kaposi, Hebra, Veuman and others report cases occurring in infancy, yet most of these authorities find a family predisposition in such early cases. The majority of cases begin between the ages of 15 and 30, while it is relatively infrequent after 40, although there is no limit at the latter end of life. Hebra and others believe the disease occurs most frequently in those enjoying apparent good health, Stelwagon considers it to be more common in those of poor health and enfeebled constitution. Crocker observed that in general practice males and females are about equally affected. Recent cases become worse during the winter; old cases are worse in the spring time. In almost all cases the eruption improves greatly or entirely disappears during the summer months, only to reappear or recrudesce when the winter returns, getting worse as the season advances. J. N. Hyde, in the British Medical Journal, of Oct. 6, 1906, advances the proposition that psoriasis is an expression of resentment on the part of the skin against the partial or total exclusion of light from its artificially covered surfaces. This view appears reasonable and in conformity with the observation that the disease is worse during that season of the year when the body is burdened with a maximum amount of covering, with a minimum of light because of the shortness of the days and the greater time spent indoors. Again the fact that Psoriasis is more common in cold, uncertain climates, and especially in Iceland where the proportion is 8 per cent., lends weight to the theory. In other words it is most prevalent and most severe at those seasons of the year and in those countries in which sunlight is least abundant, and heavier, thicker garments are worn. In support of this belief Hyde says further that Psoriasis never affects the lower animals, whether wild or domesticated, for the reason that the integument is very rarely screened from the light by artificial covering. He explains the fact that all people under the same conditions are not affected by saying the number of persons whose skin is thus abnormally sensitive to the shutting off of light is relatively small. Just as in case of cancer of the skin, a certain special sensitiveness is necessary. It is well known that the covered surfaces are almost invariably involved.

Just in this connection it is highly probable that a family predisposition or heredity plays a very important part—Wilson gives it as 30 per cent. Liveing, Gerhardt, Shoemaker and others find that inherited rheumatic and gouty tendencies are important factors. Faulty elimination on the part of the kidneys is considered causative, as also are digestive and nutritive troubles. An enfeebled state of health from any cause is predisposing. Women who are subject to the disease suffer more during pregnancy. Although people in apparently robust health are attacked yet if careful investigation be made some defect will generally be found. Gowers and Liveing find an etiological relationship between this disease and the ingestion of borax.

Although no specific organism has so far been demonstrated yet the characteristics of this disease seem to indicate such a cause, especially since cases of apparent communication and also cases which started from vaccination have been observed. Furthermore, successful inoculation has been performed on animals by Lassar and Tommasoli and on man by Destat. Crocker observes its occurrence at points of abrasion and finds this suggestive of a parasitic origin. Stelwagon believes it is in the field of pathogenic organisms that the true exciting agent of Psoriasis is to be found.

Another wide-spread theory of the origin of the disease is the neuropathic. According to its followers the disease is either

primarily a neurosis of the skin or a trophoneurosis, central or peripheral. In support of this we quote the following clinical observations from Stelwagon: Relation or association with arthritic disease; heredity; its appearance, and sometimes starting at points of cutaneous irritation; its occurrence, though rare over peripheral nerve distribution; its occurrence during pregnancy and lactation; the observation of outbreaks, in those predisposed, after emotional attacks (Leloir); the association with lessened tactile and thermic sense (Rendu) in the patches; and the observation, in some instances, of associated sciatica and pricking sensations in fingers and toes (Hebra).

REGISTRATION OF NURSES.

The following act to provide for the Registration of Trained Nurses in the State of North Carolina was passed by the recently adjourned Legislature. It requires:

That after January 1, 1904, it shall be the duty of said Board of Examiners to meet not less frequently than once in every year, notice of which meeting shall be given in the public press. At such meetings, it shall be their duty to examine all applicants for license as registered nurse, of good moral character, who can prove to the board that he or she is more than twenty-one years of age, has received the *equivalent of a High School education*, and has graduated from a training school connected with a general hospital or sanitarium, where three years of training, with a systematic course of instruction, is given in the hospital.

Examinations will be held in the elements of anatomy, physiology, materia medica, in medical, surgical, obstetrical, and practical nursing, invalid cookery, and household hygiene, and, if on such examination they be found competent, to grant each applicant a license, authorizing her or him to register as hereinafter provided, and to use the title "Registered Nurse," signified by the letters "R. N."

The said Board of Examiners may, in its discretion, issue license without examination to such applicants as shall furnish evidence of competency entirely satisfactory to them. Each applicant, before receiving license, shall pay a fee of five dollars, which shall be used for defraying the expenses of the board.

Now as an example of stupendous inconsistency we have rarely seen anything more blatant than appears in the attitude of this legislative body toward two professions so closely allied as are doctors and nurses. Our readers in North Carolina will remember that there was introduced before the Senate a bill to raise the standard of preliminary education qualifications of medical students. Reduced to its ultimate requirement all that this bill asked was that those who desire to obtain license in this State shall have received the *equivalent of a High School education*. We ask the question in all fairness: Why has this requirement been placed upon nurses and not upon physicians? To whom is the higher qualifications most essential—to the nurse or the doctor to whom she is in a certain sense subservient? Yet the rulers of our commonwealth oppose a law which would give them better doctors while they pass a bill requiring nurses to be more highly educated than the physician. The Journal has no desire to raise its voice in opposition to anything which tends to elevate the nursing profession. There is no nobler calling on the face of God's earth. But we do believe the medical profession is sadly more in need of just such a law.

COMMENCEMENT EXERCISES AT THE NORTH CAROLINA MEDICAL COLLEGE.

On the evening of April 16, 1907, at 7:30 o'clock the Academy of Music witnessed a brilliant scene when fourteen young men and four young women received diplomas from their respective schools—the former receiving the degree of M. D. from the North Carolina Medical School, the latter the degree of graduate nurse from the Presbyterian Hospital Training School for Nurses. A most auspicious occasion it was for Charlotte and for the profession of our State and of the whole section, since it marks really the opening of the new Medical School or rather the coming of the North Carolina Medical College to Charlotte.

As was eminently fitting, the ladies took precedence in the exercises at the Academy of Music. The address of Rev. Alex. Martin to the nurses was a superb effort. He spoke beautifully of the special skill with which woman is by nature equipped for the work of a nurse. At the close of this address Dr. C. M. Strong, president of the nurses committee, presented each of the following young women a diploma: Mrs. Radiant F. Sistare, of Charlotte; Miss Nancy J. Sloan, of Belmont; Miss Catherine L. Harrington, of Cameron; and Miss Ruby L. Page, of Aberdeen.

Following this exercise Dr. Chas. P. Pressley, of Augusta, Ga., was introduced by Dr. Monroe. Dr. Pressley's address to the medical graduates showed careful preparation and was thoroughly enjoyed. He impressed upon his hearers the sanctity of their vocation, their professional obligations and their highest duty of all—to work.

After Dr. Pressley had finished Dr. Munroe conferred the degree of M. D.upon and

presented diplomas to the fourteen graduates of the Medical College. They are: F. D. Austin, Charlotte; L. Baggett, Dunn; E. W. Currie, Davidson; P. S. Easley, Black Walnut, Va.; L. E. Guion, Unionville; E. H. Hand, Lowell; W. A. Johnson, Mt. Airy; J. H. Matthews, Mt. Pleasant; C. O. Peterson, Relief; C. T. Poole, Ellerbe; C. C. Ramsey, Hickory; R. E. Rhyne, Gastonia; S. O. Smith, Elkton; J. W. Wallace, Eastfield.

The graduating exercises concluded, the audience was invited to repair to the new College building at the corner of Church and Sixth streets where an elaborate reception was held.

This building recently completed at a cost of about $26,000 is one of the finest buildings of its kind in the South Atlantic States. It would be a credit to any medical school and in point of completeness, convenience of arrangement and equipment it is not equaled by any of the Southern Schools.

The first of the three floors is devoted mostly to offices of the faculty and examination rooms for charity patients. In the hall way is a large waiting room for the accommodation of those who call. In the basement is the drug dispensary, several examining rooms for colored people and a large receptacle for storage purposes. In the rear of the building is the main lecture room or amphitheatre. This room is the sight of the building to the casual visitor. The seats, of which there are between 200 and 300, rise tier upon tier to a height of about 30 feet. They make a semi-circle about the lecture stand, so arranged that every student is within easy reach of the speaker. On the wall facing the room is a slab bearing the motto of the class of 1907, "Ich Dien," I serve.

On the second floor are the physiological and pathological laboratories with private offices for the professors in charge of each. On the third floor are the chemical and histological laboratories. Occupying the rear of the third floor is the dissecting room which is situated just over the main lecture hall. This room has the light on three sides and is fitted up after the latest and most approved fashion. The floor is of concrete. The elevator connects it with the storage room in the basement.

The equipment of this new building is as perfect as money can buy. The patterns are of the latest design and the appliances as complete and thorough as can be had anywhere. There is nothing wanting to make the building, in equipment and arrangement, an ideal one. With four hospitals available there can be no lack of clinical material, and with the already large and rapidly increasing population of the city of Charlotte there is given the school a vastly broader scope. Its faculty is second to none, composed as it is of men of experience and ability. They are: J. P. Munroe, professor of physiology, nervous diseases and clinical medicine; A. J. Crowell, professor of genito-urinary and rectal diseases; I. W. Faison, professor of pediatrics and clinical medicine; E. C. Register, professor of the practice of medicine; Geo. W. Pressley, professor of principles of surgery; R. L. Gibbon, professor of clinical surgery; W. D. Witherbee, professor of skin diseases, electro-therapeutics and orthopedics; E. Reid Russell, professor of diseases of eye, ear, nose and throat; W. O. Nesbit, professor of the diseases of the digestive apparatus; C. M. Strong, professor of gynecology; Chas. H. C. Mills, professor of obstetrics and clinical gynecology; B. C. Nalle, professor of materia medica and physical diagnosis; C. A. Misenheimer, associate professor of clinical surgery; J. P. Matheson, instructor in clinical microscopy; R. H. Lafferty, instructor in chemistry and bacteriology; C. M. Peeler, instructor in anatomy and histology.

Theodore D. Buhl, president of Parke, Davis & Company, Detroit, Mich., died April 7, 1907. For over ten years he was connected with this house and his large experience, sound judgment, great power in the commercial world and unwavering honesty has served throughout that period to maintain the high standards of this well known concern. As evidence of the high regard of his associates we append the following from a memorium adopted by the stockholders, employes and executives of the company:

"As president of the house he was the perfect type of integrity and fidelity to all the stockholders. His high sense of duty as a trustee pledged to administer the property and guard the interests of others, was ever uppermost in his thoughts. The peculiar responsibilities and hazards of our work—our obligations as purveyors to the medical profession and to suffering humanity, were to him always a solemn appeal. The ultimate triumph of character in business was with him a conviction as deep and strong as instinct. The remote future and the distant prize concerned him more than the present gain."

"The strength which he gave this house and all the many enterprises in which he shared, signally exhibits what the world should realize, especially at this hour—that rich men of unflinching honesty and sound judgment are of inestimable value to their communities. They are the employers of

labor, the authors of new industries, the creators of new values, the pioneers who open up vast avenues of opportunity for their followers. As they succeed or fail, the comfort, the very bread, of thousands is assured or endangered. We hear much these days of unscrupulous, predaceous wealth, but what of the type of Theodore Buhl—what of the men who consider the trust of their fellowmen the best of their possessions, who have a horror of stock-jobbing methods, who never seek an unfair advantage, who never lend their names to a dubious enterprise?"

"As a director Mr. Buhl was the soul of courtesy, kindness and deference. As an employer he was considerate, thoughtful, mindful of the comfort, interests and claims of his employes. To their grievances he gave always a patient and attentive ear. He encouraged the manly expression of honest opinion, and when it differed from his own his effort was to convince and persuade, not to invoke his authority or impose his will."

"On behalf of the stockholders, employes and executives of Parke, Davis & Company we record this testimony to the lasting service rendered us by our lamented president. To the members of the bereaved family we offer our warm and heartfelt sympathy. May strength be theirs to bear their sorrow. May they find much comfort in the memory of a life rich in well-doing and in good repute."

STATE CARE OF THE TUBERCULOUS.

In our April issue we called attention through our editorial columns to some of the more important transactions of the recent meeting of the North Carolina Legislature. The bill to establish a sanatorium for the treatment of the indigent victims of the dread scourge of mankind—tuberculosis—carries with it grave responsibilities. The law in its final form has already designated a Board of Directors, or at least a part of the number provided for, who shall have control of the institution. Are they individuals who realize the meaning of their responsibilities? Are they men who have a proper conception of the disease and the methods of Sanatoria treatment? The importance of having in control of this institution officers who have knowledge and experience cannot be overestimated. Tyros and syco phants who are actuated only by mere selfish motives must have no place in this initial step which means so much to the whole State. It were better that we have no such sanatorium at all if it be established without the co-operation of medical men who have an intelligent and disinterested interest in the work; if it is designed by partisan architects and constructed by political contractors; if such buildings be located with the reference to the interests of some political party or boss; worse than all, if the officers or physicians must be politically acceptable and look to politicians for their needs. Such an institution would be a curse upon the cause it professes to serve.

The Journal does not mean to say that those who have control of this matter are under such domination or that the proposed sanatorium will be such an institution as has been described. We merely wish to point out some of the dangers which inevitably threaten such movements.

Review of Southern Medical Literature

Texas Medical Journal, March, 1907.

Laryngeal Diphtheria with Special Reference to Intubation.—Dr. T. V. Dodson quotes a report of the American Pediatric Society saying that before the use of antitoxin 27 per cent. of intubation cases recovered; now 73 per cent. recover, and an early use of antitoxin will lower this mortality still more. Sixty per cent. of stenosis cases do not require operation if antitoxin is used in time. His personal experience with intubation has been very satisfactory indeed. In combination with antitoxin he considers intubation one of the greatest blessings at the disposal of the physician. The operation of intubation and extubation is not in itself difficult, the latter being more difficult than the former. Only two assistants are necessary, neither of whom need necessarily be a physician, and proceed as follows: Remove all clothing from the child except the underclothing and wrap the child securely in a sheet from shoulders down, secured by safety pins. Place the child upright facing the operator in the lap of one assistant, who sits upright in a common straight-backed chair; the arms of the patient should be firmly held below the elbows; the child's legs are clasped between the knees of the assistant. The second assistant stands behind the chair and when the gag is introduced includes it within the firm grasp. The position of the child should be as though it hung from the top of its head. The operator should have the tube properly prepared and armed with a small string; this is necessary in case the tube should become blocked or be turned loose in the esophagus it can be immediately removed. The operator now stands in front of the patient and inserts the index finger of the left hand, passing it well back into the pharynx, then bringing it forward until the upper border of the cricoid cartilage is

felt; directly in front of the cricoid cartilage may be felt the epiglottis and the opening into the larynx. The epiglottis is hooked up and with the tongue brought forward and upward; the tube is passed along the palmer surface of the index finger and guided into the larynx when the tube has reached the opening of the larynx; the hand of the operator should be elevated in order to prevent the tube from passing over the larynx and going into the esophagus. The tube is then released from the introducer and gently pushed home by the finger.

The American Practitioner and News, March, 1907.

Emergency Surgery.—Dr. F. W. Samuel believes that wounds in connection with fractures, mashed fingers, and injuries about the head form a most important class in emergency surgery. In all wounds of the hand the greatest amount of conservatism is demanded. To the surgeon there are but two classes of wounds that present to the surgeon as an emergency. That is, the infected wound and the one in which infection has not apparently taken place, the so-called non-infected wound. In all wounds occurring from machinery one of the most noticeable features is the amount of grease, dirt, and foreign bodies which are incorporated in the irregular, torn structures. The fact that these structures in and about the wound though they may remain temporarily healthy are, to a large extent, devitilized and die. The resulting slough being the most inviting structure for infection, therefore, a great deal of care necessarily must be given to such a class of cases, such as trimming away such tissue as will certainly perish and become a nidus for infection. All wounds, whether infected or not, should receive in their primary state the most careful and delicate treatment, for it has become a known fact that in the treatment of wounds one of the greatest errors that was formerly made was the irrigation or application to the wounded surface of strong antiseptic solutions—mercuric solutions standing at the head. Such solutions produce a superficial necrosis, thereby harboring germs and destroying temporarily parlylized cells which would have been of a decided potential value in resisting the invasion of micro-organisms, even though they had not been removed. It is, therefore, a law that a fluid should be used which has a very mild antiseptic value and its highest aim should be non-irritating. But its value depends in its mechanical removal of all foreign bodies, whether they be micro-organism or dirt. With the removal of all tissues that will die the protected wound under these circumstances is left in the best possible condition with nature's forces to repair itself.

Memphis Medical Monthly, March, 1907.

Dysentery and Diarrhoea.—Dr. J. L. Jelks writes the following quotation from Tuttle "all authors are practically unanimous in the opinion that the disease is due to local invasion or infection by some pathogenic agent; and that the original infection and in the majority of cases the chief area infected is in the lower portion of the large intestine; in other words, the rectum and and sigmoid flexure; if this is so the study and treatment of the disease should be through the rectum." The author's investigations are entirely in accord with the above quotation, and in the vast majority of his cases the sigmoidoscope could be made to pass all visible foci of invasion, yet in some of these cases the disease had been of long duration. Extensive undermined ulcers seemed to extend down to the muscular coat, and in at least two cases an abscess had developed in the liver.

To make a diagnosis the patient should be examined in a warm room placed in the germpectoral position; the protoscope, which has been warmed, is introduced and a search made for the characteristic lesion scrapings from which are placed upon a warm slide, over which is placed a cover glass, and examined immediately. The microscope is seldom necessary except to verify or set aside any possible doubt, for the characteristic circinate or ringworm-like lines in the mucosa are not observed in other forms of infection. These lines or ulcers are chiefly submucous, but sooner or later break down into undermined ulcer and may then assume any shape; but there will be others to tell the story.

With reference to treatment the author insists that the disease or infection and pathology being entirely local and in many instances confined to the lower end of the large intestine the disease must be treated as such and in no instance as a systemic disease; moreover, he decrys and deplores the practice which has been in vogue since our grandsires entered the practice of their tutors of checking the frequency of discharges and relieving the pain attendent therewith by the administration of opiates, both by the mouth and the time-honored laudanum and starch water enema. Open the avenues, liberate the pus, get rid of the pathogenic elements and nature again, as ever, tireless in her efforts will restore the inflamed gut to normal save the scars. When the disease has become chronic and when the cecal, hepatic and splenic areas

are known to be involved appendicostomy is indicated and should be performed; but again the admonition—do not close the stump as soon as is the practice, for the disease is distinctly relapsing and it would be better to irrigate three or six months with a certainty of cure than to live in dread that your patient will in a few weeks or months or even years be seen with a return of the symptoms or an abscess on the liver, or collapse and death from perforation.

Virginia Medical Semi-Monthly, March 8th, 1907.

Principles of Surgery, Lecture XXIII, Treatment of Syphilis—Local, Specific, Constitutional.—Dr. Stewart McGuire under the heading of general treatment says the use of tobacco, either chewing or smoking, is bad, as it produces local irritation of the mouth and tends to the formation of mucous patches. Many patients, however, cannot be induced to discontinue a habit which is fastened on them by long custom, and then the best that can be done is to send them to a dentist to see that the teeth are in thorough order, and to direct the regular use of some antiseptic mouth wash. Alcohol is also bad, and stimulants should be interdicted except in case of a feeble individual who from use is more or less dependent on them. The food should be nutritious in character and abundant in quantity. An eminent authority once stated that the best remedy for syphilis was a French cook. Outdoor exercise should be encouraged, as it gives vigor and muscular tone, increases the appetite and aids digestion. The clothing should be light and warm, flannel being worn next to the skin to keep the pores open and make it active. Warm baths are useful to insure cleanliness and to aid in the elimination of the poisons. When circumstances permit a Turkish bath should be prescribed once or twice a week. Tonics should be administered as indicated—iron for anemia, quinine for malaria, and a bitter stomachic for loss of appetite.

The question of the advisability of a trip to the "Hot Springs" will always be asked by the patient, and the answer must be based on the circumstances surrounding the special case. There is no specific property in the waters, the advantages derived being the removal of the patient from the responsibility and worry of home and business, the change of climate and environment, the advice of men who have had great experience in the treatment of the disease, and, finally, the fact that the patient will, in his new surroundings, carry out instructions that he would not do at home. Despite the advantages mentioned there are certain objections which sometimes outweigh them —namely, expense, loss of time and publicity.

Richmond Journal of Practice, Feb., 1907.

Etiology and Pathology of Movable Kidney.—Dr. R. C. Bryan gives the following four cases as being the most potent in the production of dislocation. First, a failure in the closure of the fascia renalis, inferiorly and internally. Secondly, the constant insults from above by respiration and contracture of the diaphragm. Thirdly, the inelastic dragging ureter from below. Fourthly, the tugging, pulling hepatic flexure of the large iniestine. The pathology is dependent directly upon the degree of ptosis. Lesser degrees do not affect the relation of the kidney to its vessels, nor do they disturb the action by pressure or by traction of adjacent parts.

The pathological epiphenonmena may be: 1. Those due to the kidney. 2. Those due to traction upon viscera connected with the kidney.

1. There is a traction upon the renal vessels more on the right than on the left, which results in a nicking constriction, torsion, oreven, rupture of the intimal coat with thrombosis—a gangrene congestion stasis enlargement of the organ following this interference with the blood supply. The ureter with this downward displacement is kinked or twisted, hydro-nephrosis occurring, which is relieved by recumbency or the acute angle of the insertion of the ureters into the pelvis may become hypertrophied, a valvular formation resulting, giving rise to an intermittent or permanent hydronephrosis. Pelvic congestion, plus infection, is the forerunner of calculi undermining the kidney substance, pus, kidney, or perinephritic abscess.

2. The peritoneal and cellular attachments of the kidney to surrounding organs are of the greatest importance. A well defined dislocated kidney of the right side producing decided traction upon the reflections of the liver, duodenum, and pylorus mechanically interferes with the normal functions of these organs—obstruction of the biliary and pancreatic channels, cholecystitis, cholelithiasis, biliary, cirrhosis, pancreatitis, pyloric, and gastric ulcer and duodenitis being some of the lesions in this location which are directly traceable to the wandering, misplaced kidney.

Gaillard's Southern Medicine, March, 1907.

The Functions of the Fallopian Tubes in the Phenomena of Menstruation.—Dr. W. E. Fitch says that the significance of menstruation is yet in great dispute. All modern theories agree that it is more or less

associated with the reproduction of the species. In the early days it was thought to be an effort on the part of nature to rid the body of effete material. Later Pfluger enunciated the theory that menstrual bleeding and denudation occurred for the purpose of affording a new and freshened surface for the recently fructified ovum, always ready to respond to the bountiful preparation which nature had prepared for its reception, to which it at once attaches itself just as a gardener in grafting provides a wounded surface upon which the young scion is set, or in uniting two membranes covered with tissue the surgeon first denudes the surface by removing the skin so that union will take place when the freshened surfaces are brought together and maintained. This conception of the phenomena is universally accepted.

In animals conception is confined to the season of "heat" or "rut," while in woman it is possible at other times than her monthly periods. In this respect woman is more highly endowed than her manimalian ancesters. With only one or two exceptions woman is the only female that will entertain sexual relations with the male after conception having taken place. The author has observed that the nanny-goat and monkey will take the male in sexual congress daily from conception to delivery.

In substantiating the theory that the fallopian tubes play a part in the role of menstruation Dr. J. Riddle Golf, of New York, reports two cases of vaginal hysterectomy. In each instance the ovary and tube on one side were left in situ. During convalescence in removing the pelvic drain the proximal end of the tube in each case was dragged down into the vagina and remained in the vagina. It was observed that a bloody discharge was seen to trickle down from the fimbriated end of the tubes. The observations were continued for several months and then in fear of the possibility of tubal pregnancy the doctor sealed up the ends of both tubes.

Maryland Medical Journal, March, 1907.

The Danger of Sending Consumption to the Country.—Miss E. N. La Motte believes that out of 55 cases recently sent to the country that it is probable that 55 centers of infection were created. In these instances it is doubtful if any of these infected houses were afterwards fumigated or cleaned with a view to making them harmless. It has, of course, been impossible to follow the results in all these households—little country farm houses in remote counties—but doubtless some of them were as appalling as in the two instances that have recently come to the author's knowledge. One of these was the case of a consumptive sent from Baltimore to a little farm house in Virginia and three members of that country household contracted tuberculosis from him. The original patient died, one of the secondary cases died, and the other two have but a few months to live. The other case is of a woman who had been under the surveillance of the tuberculosis nurse for some months. While in the city the nurse saw to it that the patient used sputum cups regularly and slept in a room to herself. This patient who had been sick about two years was finally sent to the country. She had no supplies and she and her child of five occupied the same bed while in the country. At the end of five months she returned to Baltimore almost in a dying condition and it was found that her child had contracted tuberculosis. This indiscriminate sending of patients to the country is a very serious matter. It is of little value to the consumptive, but of grave danger to the ignorant and helpless household where he is quartered. If he cannot be admitted to a sanitarium he should be watched over at home where his menace to the community may be lessened. However sympathetic we may be sentiment should give way to facts, and the facts show that the consumptive has not (by the very nature of his disease) sufficient moral courage to undertake the rigorous open air treatment alone. By ordering him to the country we shift the responsibility and so ease our consciences, but we do not help the patient. We merely spread the disease. Until public sentiment demands hospital facilities for these patients we should keep them in their homes. For advanced cases we need hospitals, not farm houses.

Nashville Journal of Medicine and Surgery, March, 1907.

Clinical Lecture, Erythematous Eczema—By Dr. J. V. Shoemaker.

The Southern Practitioner, March, 1907.

The Morbid Histology of Renal Disease.—Dr. H. Padgett says that it has been generally thought and still believed that the kidneys throughout the course of infectious fevers, especially those lasting three or four weeks, are in a stage of acute hyperemia; but from personal investigations the author is seriously inclined to doubt the veracity of this statement. He believes that in the first few days of an infectious fever that the kidney is acutely congested, but later on in the course of the disease the organ is in an opposite condition. Chronic congestion of the kidney is usually produced by some cardiac disease, especially mitral regurgitation, chronic aortitis, emphysema and

large accumulations in the pleural cavity, and these conditions often lead to a chronic nephritis. In examining a kidney that is chronically congested it is not always the case that the organ is enlarged, but often it is, and in proportion to its size it is very heavy, of hard consistence, dark red in color, the pyramids are dark red, while the cortex may be pale. The epithelial cells are normal in some cases, but often show cloudy swelling and degeneration and are detached. No change in the connective tissue unless there is a beginning interstitial nephritis, which is quite often the case. The capillaries of the malpighian bodies are not always dilated but often are so and the cells that cover the capillaries are swollen. Acute degeneration, sometimes called acute parenchymous degeneration, is a condition that exists more often than is suspected during life and is an acute death of the cells of the malpighian bodies and tubules. We find this condition in acute infectious diseases and in severe inflammations in other parts of the body, and in poisoning by mercury, phosphorus and arsenic. The author specially mentions scarlatina and diphtheria that are capable of producing both degeneration and inflammation. The gross appearance of the organ varies according to the intensity of the local infection. In mild or moderate cases the organ is a little swollen and with pale cortex, while in the severest cases the organ is considerably enlarged and the cortex is pale and congested.

Virginia Medical Semi-Monthly, March 22, 1907.

Principles of Surgery, Lecture XXIV, Palmar Abscess, Suppurative Tenosynoritis, Paronchyia Furuncle Carbuncle. —By Dr. Stewart McGuire.

Treatment of Burns and Scalds.—Dr. M. Moran says that solutions of bichloride of mercury, carbolic acid, and other poisonous drugs are to be condemned as dressings for burns on account of the irritation and pain which they occasion, especially when used on large surfaces, and also because they interfere with healing and seem to predispose to the formation of less smooth cicatrice. He would not discourage their service after the healing process is far advanced and the parts had lost their sensitiveness. Powders are only to be employed after the granulations have become practically aseptic and dry, and those official in the Pharmacopœia are as reliable as the more costly proprietary preparations. Nutritive dressings have been recommended as valuable for sluggish granulating surfaces due to burns. Valentine's Meat Juice is said to exert a wonderful influence upon the embryonal cells during the formation stage, but when the granulations become healthy it has served its purpose and must give place to other dressings. Turpentine is an agent which many surgeons use exclusively in burns. Cotton is kept saturated with the ordinary commercial article and applied directly to the wound. The author used it in one case and has discarded it for better treatment. Haldor Sneve in a recent article reports a series of cases of burns treated by what he calls the "open method" that is, by leaving them exposed to the air instead of occluding as usually done. He claims for this method that healing only takes one-third the time; the scar is not so large or ugly and there is less pain. As opposed to these advantages the author would add the greater liability of infection with its numerous dangerous consequences.

The Mobile Medical and Surgical Journal, February, 1907.

The Treatment of Syphilis.—Dr. Henderson believes that the careful, observing physician should watch his patient until the grandchildren are born before he can truthfully say that the patient is cured of syphilis, though by no means should he continue the treatment during all these years. There are several reasons why he prefers the hypodermic method, the first of which is its general efficiency in relieving promptly the symptoms of the disease. It is more exact and compared to the inunctions more cleanly, and when compared to the oral more prompt. The physician remains master of the patient and of the disease and the dose can be readily and instantly increased or diminished as conditions demand. He believes it more permanent in its effects and less liable to be followed by the later manifestations of the disease, and again a cure is effected with the minimum amount of the drug. It is little trouble to the patient and does not interfere with his daily occupation. It inspires hope, as he readily feels himself improving under the tonic treatment, and the last but not least important feature of the method is its privacy, which appeals to the sensitive more strongly than anything else. There is little and sometimes no pain connected with the injection, and after a few visits to the office the patient seldom, if ever, complains of the puncture. Rashes, neuralgias, ulcers, and specific nodes will disappear like magic under the treatment, and the great difficulty in the way of a cure lies in the carelessness of the patient who will often discontinue his visits when he is relieved of his pain. It is customary to inject 1-12 of a grain of the cyanide of mercury into the subcutaneous tissue over the

buttock about four times a week, and for convenience he has a solution made up wherein 10 m equals 1-12 of a grain. The dose is modified or increased as the exigencies of the case demands. After a time the patient comes to the office three times a week, and gradually as his condition improves the length of interval between the injections is increased until a period of three months have passed, when he is given instructions to return in three months or sooner if necessity demands.

Gaillard's Southern Medicine, Feb., 1907.

Therapeutic and Food Value of Breast Milk.—Dr. G. T. Grinnan says that the work of the past fifteen years has made it possible to give an infant an artificial food which, as far as the experiments in the test tube, is nearly if not quite as digestible as human milk. F. P. Denny says that "The mortality records show that infants seldom die on account of their inability to digest a properly modified cow's milk. They die on an exclusive artificial diet because they have disturbance of assimilation (infantile atrophy) and they cannot resist bacterial infection."

Breast milk has a much wider function than is generally recognized. Breast milk has not only the power of aiding in the assimilation of the food, but also the power of increasing the resistance of the infant to infection. The blood of nursing infants attains quite a germicidal property owing to the absorption of antibodies transmitted from the mother. Escherich points out that ferment-like bodies of the internal secretions are taken out of the blood by the mammary gland and are reabsorbed with the food by the infant, and thus passing into the body fluids aid metabolism and make good the deficiency of these ferments in the infant. Wentworth points out that human milk contains special ferments that stimulate the activity of the digestive glands. The value of human milk in infantile atrophy is gaining general recognition. Escherich pointed out the fact that infantile atrophy is a disturbance of intermediary metabolism and is caused by a deficiency of those ferments which regulate and control nutrition and growth of the tissues, and which are the products of the so-called ductless glands. Moro found that even in weak and delicate breast-fed infants, who were not doing well, the blood showed greater germicidal properties than in the most flourishing and healthy bottle-fed babies. The alexin which destroy bacteria in the body are almost certainly of the nature of ferments. The alexin have not been demonstrated in the milk and the milk itself has practically no bactericidal power. The probable reason for not being able to discover the alexins or complements of Erlich is that they are combined with the casein molecules in such a way that their presence has not been demonstrated.

The Southern Clinic, March, 1907.

The Over-Treatment of Syphilis.—By Dr. C. A. Bryce.

Nashville Journal of Medicine and Surgery, February, 1907

Practical Therapeutics.—By Dr. E. S. McKee.

New Orleans Medical and Surgical Journal, March, 1907.

The Operative Surgery of the Spine and Cord.—By Dr. W. S. Bickham.

Atlanta Journal-Record of Medicine, March, 1907.

The Clinical Significance of Blood Examinations in Reference to Surgical Diagnosis and Prognosis.—By Dr. Willis Jones.

The Texas Medical News, January, 1907.

Puerperal Embolism.—By Dr. C. A. Gray.

Book Notices.

Modern Medicine. Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 1,000 pages each; illustrated. Volume I just ready. Price per volume, cloth, $6.00, net; leather, $7.00, net; half morocco, $7.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1907-1908.

From every viewpoint, scientific, literary and practical, this new work just coming from the press promises to be the most important ever undertaken in medicine.

The first volume, which has now come to hand, contains an Introduction by the Editor himself, which he entitles "The Evolution of Internal Medicine"—a most interesting

history of medicine from pre-Hippocratic times to the present day, tracing the growth of the science and art in the various schools and countries which have contributed to build up the existing structure of knowledge. To this is added a forecast of the lines on which further development would most fruitfully proceed. The whole introduction is, of course, scholarly and epigrammatic, marked by the keen observation of the trained physician who is also a man of the world, full of wisdom and altogether delightful reading.

Dr. J. G. Adami, of Montreal, begins the body of the volume with an article on "Heredity and Predisposition." The article is thoroughly up to date, and from the charm of the author's style, this most important subject is made very easily understood.

"Auto-intoxications," from the pen of Dr. Alonzo Englebert Taylor, of San Francisco, is another of these conclusive and exhaustive articles on a difficult subject which will make Osler's Modern Medicine the recognized authority for the next quarter of a century. His treatment of the question of Gastro-Intestinal Auto-intoxication is of the most illuminating character, and is full of helpful suggestions to the general practitioner in the treatment of diseases consequent on malnutrition.

Nearly 60 pages are devoted by Dr. Charles F. Craig, U. S. A., to the consideration of "Malarial Fevers." The article is comprehensive, accepting, of course, the theory of transmission by mosquitoes, and pointing out that a fever which is not cured by the proper administration of quinine is not of malarial origin. His suggestions as to prophylaxis are in every respect valuable.

Other thoroughly practical clinical articles are those by Dr. Thomas B. Futcher, of Johns Hopkins, on "Diabetes and Gout;" by Dr. J. M. Anders on "Obesity;" and by Dr. George F. Still, of London, on "Rickets." The scientific physician will regard the profoundly scholarly article on "Metabolism, Normal and in Disease," by Chittenden, of Yale, as of fundamental value. There are excellent articles, also, by Drs. Alfred Gordon and David L. Edsall, of Philadelphia, Alexander Lambert, of New York, F. G. Novy, of Ann Arbor, James H. Wright, of Boston, and others.

Modern Medicine, the best fruitage of the new era, is a work for every physician who would keep qualified for the full discharge of the duties attaching to the most responsible of all professions.

Paraffin in Surgery. A Critical and Clinical Study by Wm. H. Luckett, M. D., Attending Surgeon Harlem Hospital, Surgeon to the Mt. Sinai Hospital Dispensary of New York and Frank I. Horne, M. D., Formerly Assistant Surgeon Mt. Sinai Hospital Dispensary. 12 mo.; 38 illustrations; 118 pages. Surgery Publishing Co., 92 William Street, New York City. Cloth, $2.00.

This book covers a special field in surgery of absorbing interest both to the surgeon and general practitioner. The research and original investigations made by these authors in the use of Paraffin have exploded many fallacies previously maintained. It presents the Chemistry of Paraffin, the Early Disposition of Paraffin in the Tissues, Physical state of the Paraffin bearing on its Disposition, the Ultimate Disposition of Paraffin, Technic and Armamentarium. It thoroughly covers the use of Paraffin in cosmetic work such as Saddle Nose Deformity, Depressed Scars, Hemiatrophia Facialis with a large number of photographs showing cases before and after operation, with illustrations of micro-photographs of the Disposition of the Paraffin in the Tissues. It also presents other conditions of a functional character, where Paraffin can be used with service such as Incontinence of Urine, Umbilical and Ventral Hernia, Epigastric Hernia, Inguinal Hernia, etc. The subject is presented in a scientific yet comprehensive manner.

Full details are given as to the method of preparing the Paraffin as well as the method and manner in which it should be injected. This book presents a wide field for the use of Paraffin and a copy should be in every physician's library. It is printed upon heavy coated book paper and attractively bound in the best quality of heavy red cloth, stamped in gold.

Plaster of Paris and How to Use It. By Martin W. Ware, M. D., Adjunct Attending Surgeon, Mount Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor in Surgery, New York Post Graduate Medical School. 12 mo; 72 illustrations, about 100 pages. Surgery Publishing Co., 92 William St., New York City. Cloth, $1.00.

This is one of the most useful books ever presented, not only on account of the general demand for the information and instructions upon the subject which this book so explicitly, practically and comprehensively covers, but because this knowledge was not previously available except from such a vast experience as enjoyed by Dr. Ware, or, in part, by reference to many books on allied subjects.

It is a vivid narrative, profusely illustrated, of the many uses to which Plaster of Paris is adaptable in Surgery. The whole

subject, from the making of the bandage to its use as a support in every form of splint, corset or dressing, is graphically described and illustrated. The use of Plaster of Paris in Dental Surgery is also covered. The book is presented in the artistic manner characteristic of the productions of the Surgery Publishing Company. It is printed upon coated book paper and attractively bound in heavy red buckrum, stamped in white leaf and gold. Price, $1.00.

The Practitioners' Medical Dictionary. An illustrated dictionary of Medicine and allied subjects, including all the words and phrases generally used in medicine, with their proper pronunciation, derivation, and definition based on recent medical literature. By George M. Gould, A. M., M. D. Illustrated. P. Blakiston's Son & Co. 1012 Walnut Street, Philadelphia. 1907.

This book is in every respect and detail new. While it retains all the old and acceptable features of previous editions—the chief being the simple method, easily understood at a glance, of indicating the pronunciation and accentuation of words—it contains many valuable and novel additions. Among these may be mentioned: The metric system of weights and measurements in doses, &c.; the additions and changes of the new Pharmacopeia; and the terms of the Basle anatomic nomenclature [BNA]. The pages contain a large number of valuable and helpful illustrations. As a handy reference volume the Gould Practitioners' Medical Dictionary is unsurpassed.

The Nursing and Care of the Nervous and the Insane. By Charles K. Mills, M.D., Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic; Neurologist to the Philadelphia Hospital, etc., etc. 12mo. 147 pages. 14 illustrations. Cloth, $1.00. Second Edition. J. B. Lippincott Company, Philadelphia. London: 5 Henrietta St., Convent Garden. 1905.

A very practical little volume, useful not only for nurses, but also for physicians. It fills the want and serves the purpose in describing the nursing and care of patients suffering from functional or organic nervous trouble. Most books on the subject are quite too voluminous and unadapted for the purposes of nurses, while this volume is a concise and complete manual on massage, electricity, bathing, &c., with very clear directions as to apoplexy, drunkenness, hysteria, epileptic seizures, &c.

The Common Bacterial Infections of the Digestive Tract. By C. O. Herter, M. D., Professor of Pharmacology and Therapeutics in Columbia University; Consulting Physician to the City Hospital, New York. The Macmillan Co., New York. Macmillan & Company, Ltd. 1907.

If one examine with the microscope the contents of any portion of the large intestine of man or any other mammal, the vast abundance of micro-organisms is strikingly apparent. This volume is intended to give a better insight into the bacterial conditions of the digestive tract and to describe methods which can be utilized in practice and which will furnish practitioners with new and reliable indications as to the progress of many cases of infection of the alimentary canal.

Transactions of the Medical Association of the State of Alabama. Meeting of 1906.

Dr. J. N. Baker, of Montgomery, as secretary of his State society and chairman of its publishing committee, has published a most creditable volume containing the transactions of their last meeting. It contains much of genuine interest.

The Stones of Paris—In History and Letters. By Benj. Ellis Martin and Charlotte M. Martin. Illustrated. Chas. Scribner's Sons. New York. 1906.

This book has been written for those who seek in Paris something more than a city of shows or a huge bazaar. There are many lovers of this beautiful capital who find in the rapidly disappearing monuments of past generations a wealth of record and tradition. The streets of Paris are alive with significant relics of the past and mainly because of the historic associations given them by conspicuous figures of other days. The volume will reveal to the reader a new meaning in objects which perhaps have before excited nothing more than a superficial interest.

The Modern Pulpit. A Study of Homiletic Sources and Characteristics. By Lewis O. Brastow, D. D., Professor of Practical Theology, Yale University. The Macmillan Company, New York. Macmillan & Company, Ltd., London. 1906.

In this volume, the author undertakes to interpret the preaching of our day by going back and finding out those agencies which in the past have chiefly affected it. The pulpit of today in its general traits and tendencies is contrasted with the pulpit of former days. Influences that were active in the last century, and in the century preceding, which have revolutionized preaching are analyzed and classified.

Dr. Brastow dwells chiefly on Protestantism because, he says: "It is Protestantism only that in the fullest sense may be said to

have, either in theory or in fact, a modern pulpit." The book will be recognized by thoughtful readers as a work of remarkable attractiveness and ability.

The Silent War. By John Ames Mitchell. Illustrations by Wm. Balfour Ker. Life Publishing Co., New York, 1906.

The story deals with a group of multi-millionaires who become the victims of a socialistic movement—a popular awakening resulting in such radical measures as blackmail and assassination. The plot is complicated by a love affair between one of the money kings and the daughter of one of the members of the People's League. The book is an interesting social study though decidedly radical in its suggestion.

The President's Views on the Small Family.

There are countries which, and people in all countries who, need to be warned against a rabbit-like indifference to consequences in raising families. The ordinary American, whether of the old native stock or the self-respecting son or daughter of immigrants, needs no such warning. He or she needs to have impressed upon his or her mind the vital lesson that all schemes about having "doctors in public schools," about kindergartens, civic associations, women's clubs, and training families up in this way or that are preposterous nonsense if there are to be no families to train; and that it is a simple mathematical proposition that, where the average family that has children at all has only three, the race at once diminishes in numbers, and if the tendency is not checked will vanish completely,—in other words, there will be race suicide. Not only the healthiest, but the highest relations in life are those of the man and the woman united on a basis of full and mutually respecting partnership and wise companionship in loving and permanent wedlock. If, through no fault of theirs, they have no children they are entitled to our deepest sympathy. If they refuse to have children sufficient in number to mean that the race goes forward and not back, if they refuse to bring them up healthy in body and mind, then they are criminals.—From "A Letter from President Roosevelt on Race Suicide," in the American Monthly Review of Reviews for May.

A Lucky Find.

The poet Lowell asked "What is so rare as a day in June?" And the answer is: a right down good detective story. Lippincott's Magazine is therefore lucky to secure for the complete novelette in its May issue one that is up to the top-notch. "The Moyett Mystery," by Nevil Monroe Hopkins, is superlatively original in scheme, yet quite within the realm of reason. A satisfying conclusion is reached through rapid-acting scenes of thrilling obscurity. While love is not the primary interest in this captivating tale there are glimpses of the tender passion, between a niece of the victim and one of the men who essays to unravel the mystery, which relieve the high tension in which the whole is enveloped.

There are eight short-stories up to the standard which this Magazine has established—and endeavors to raise a peg with every number. Bertha M. Sinclair contributes one of her best stories of the far West, "The Deputy," which is humorous and pointed. A charming love-story of artistic trend is "The Real Thing," by Katherine Metcalf Roof. "The Firebrand," a tale of South Russia by George Allan England presents a powerful picture of present-day priest-craft in the land of the Czar. Minna Thomas Antrim's sweet child sketch, "Sadie of the Kind Eyes," blends humor and pathos. A lively story of modern home life is "That Deal of Doughty's," by Walt Makee. "The Great Tangle," by Jane Belfield, is a clever emotional monotone. An entertaining satire of a triangle—one man and two girls,—is "As Managed by Carolyn," by Jean Louise West. "Jimmie Emmence, Matchmaker of Circle N" is a Western love-story on novel lines; its author is C. Cunningham.

"Shall we believe in Ghosts?" inquires Rene Bache in the title of his interesting talk about spectral evidence up-to-date in the May Lippincott's. He produces some curious instances of when "the ghost walked."

George L. Knapp, a virile young journalist-author, of Colorado, who is bounding into notice, writes of the "Legend of Tannhauser" after a manner all his own, in which is woven the touching story so familiar to opera lovers.

"Ways of the Hour"—the new department in Lippincott's Magazine—carries four bright little editorials on themes of interest: "Accommodating the Stork," by Clifford Howard; "Overworked Words," by Anne Hollingsworth Wharton; "A Billion a Year for Railway Development," by Joseph M. Rogers; and "Household Decoration," by Mrs. John King Van Rensselaer.

There are poems of merit in tune with the awakening season; and "Walnuts and Wine" of the best vintage, to close a first-class spring number of the Magazine.

Abstracts of the Leading articles of the month.

Amputation of the Cervix During Pregnancy for Hypertrophy of the Vaginal Portion.—Potocki (Ann. de Gyn. et d'Obst.) mentions the advisability of amputation of the hypertrophied vaginal portion of the cervix, even during pregnancy in order to avoid the very real danger to the patient at the time of delivery. The patient observed by the author had been advised before the pregnancy to undergo an amputation of the vaginal portion of the cervix, but had declined. No interruption of pregnancy took place as a result of the operation, and delivery was rapid and simple at term. The only complication to be feared as a result of the operation is the occurrence of abortion, but the author contends that if there is no dragging on the uterus at the operation there is no real danger of an abortion taking place. The writer mentions the history of a number of cases recorded in literature in which delivery with such a long cervix could be accomplished only by deep incisions of the cervix and the use of forceps, exposing the patient to danger of septic infection of the uterus. We find four conditions that cause the cervix to descend in the vagina: simple prolapsus, hypertrophy of the supravaginal portion, hypertrophy of the portion contained in the vagina, and acute cervical edema resulting in hypertrophy. Simple prolapsus reduces itself as pregnancy advances. The edema of pregnancy may cause a hypertrophy that should not be confounded with that existing previous to pregnancy, since the prognosis is not grave in the acute condition. As a result of permanent hypertrophy of the vaginal portion, accidents are quite common enough to justify interference before pregnancy is well advanced, as the cervix will not soften or dilate at the time of labor and remains a severe obstacle to the descent of the head. A resume of eight cases of amputation published by various authors shows that abortion did not result in seven cases; six accouchements were at term, one was premature, and only one abortion occurred. Operations during pregnancy are regarded as justifiable to prevent complications dangerous to the life of the mother, to prevent abortion, and to prevent dystocia. He says that the prognosis of hypertrophy is grave for the mother. On the side of the child the obstacle to dilatation makes the length of labor so great as to endanger its life, especially as the membranes rupture prematurely. When dilatation fails to occur and incision does not give room for delivery by forceps, it is necessary to do Cæsarean section to get a living child. The amputation is not attended with danger when the parts are so coaptated as to secure perfect union without cicatrices. A supple, easily dilatable cervix is obtained. The operation should be done in the fourth month of pregnancy, since this is the time when operation is least likely to produce abortion. Morphine should be used after the operation to control uterine action. The hemorrhage at the operation is small, since the cervix is not very vascular. He states that there are good indications for amputation of the vaginal portion of a hypertrophied cervix during pregnancy; abortion is exceptional if done at the fourth month and with precautions indicated, there is no cicatricial contraction of the cervix if there is exact coaptation of the vaginal and intracervical mucous membranes, and no obstacle to dilatation results. Complications at time of labor, which would be the result of an undilatable cervix, are avoided.

Reflex Epilepsy.—Urbantschitsch (Wiener Klin. Woch.) says that reflex epilepsy does not include all epileptic seizures which are determined by way of reflex. The designation applies to two entirely distinct affections, namely:

1. True epilepsy, in those cases where the individual seizures are determined by way of a remote portion of the body.

2. Epileptiform seizures, which are temporarily determined by a pathological condition of a definite area of the body.

The differentiation between these two affections sometimes meets with considerable difficulties. In a patient, for instance, who had been regarded for a number of years as a true epileptic, the accidental discovery of advanced caries of the petrous bone, with cholesteatoma, led to radical operation, and subsequent complete subsidence of the attacks. Four years later he had another seizure, the cause of which was demonstrated as a recurrence of the caries, with strictly localized cholesteatoma. The second operation promptly resulted in complete well-being. This case doubtlessly did not constitute true epilepsy but only epileptiform seizures.

In another patient, who had suffered during several years from epileptiform attacks, the seizures entirely subsided during his recovery from a fracture of the arm, which required a number of months. After the bone had healed, the attacks returned quite regularly, until they were favorably influenced by the treatment of the patient's chronic obstipation. The subsidence of the seizures during the cure of the fracture is referred by the author to a reflex inhibition, starting from the injured part. At all events

cases of this kind serve to show the possibility of a peripheral influence upon epileptiform seizures. Careful research as to the possible relations between certain segments of the body on the one hand, and the seizures on the other, may serve to point out the most suitable form of treatment.

Vasculodepresser Drugs.—Saundby (Brit. Med. Jour.) notes the general employment of heart tonics; there is not, however, sufficient use made of the vascular depressants, which are of great utility in such advanced cases of heart disease as are "no longer able to answer to the whip." These depressants act by relaxing the peripheral arterioles; and by lowering the blood-pressure they lighten the burden the heart has to bear. Among them is ethyl nitrite, which is contained in sweet spirits of nitre, but is unstable and unsatisfactory. Amyl nitrate is useful, but has obvious disadvantages in some cases; glonoin, the one per cent. solution of nitroglycerin, is active, safe, easy to administer and can be dosed to the requirements of each patient; sodium nitrite has not given good results. All these drugs are transient in their effects; they are really more valuable for removing pain than for giving permanent relief. Nitroglycerin is valuable in advanced cases accompanied by oppression or pain suggestive of angina pectoris. The patient should carry about with him a small bottle containing one or two minims to the teaspoonful, to be taken when the distress comes on. This solution is preferable to tablets. Saundby now employs erythrol tetranitrite to produce a permanent unloading of the weight on the heart; a single dose will for four hours lower the pulse tension—an observation of Bradbury which can be demonstrated by sphygmographic tracings made before and after administering the drug. One-half grain in a tablet is administered every four hours while the patient is awake; it may occasionally cause headache, but very rarely so severe that the drug need be discontinued. It may be alternated with Nativelle's digitaline, giving the drugs with four hours interval between the doses of each. The value of mercury seems to be limited to its power to get rid of those alimentary poisons which set up vasomotor spasm. Dieulafoy treats chronic disease of the heart and great arteries by hypodermics of a solution of mercury biniodide; Saundby has seen no good results from this method, while the injections occasion much local pain and frequently suppuration. Baillie's pill (digitalis, squill and blue mass) possesses a deservedly well-founded reputation in dropsy; but its effects are probably not attributable to the action of the mercury it contains on the vascular system. Iodide of potash is frequently combined with other cardiac remedies, less often by itself; its utility is certainly not limited to cases of supposed syphilitic aortitis, but depends on its action as a vascular depressant. He has not found belladonna very effective in heart disease; plasters containing this medicament apparently relieve some kinds of heart pain, "but they are dirty, unpleasant things, which interfere with auscultation and are only fit for out patients." Bleeding from the arm and leeching the precordia are means indicated in marked right heart engorgement; this procedure will most speedily relieve the heart, but it cannot be repeated except at comparatively long intervals. The results are striking and death has often been postponed by timely bloodletting; under such circumstances, however, the conditions are generally unfavorable to complete recovery.

The Pathogenesis of Tetany.—Pineles (Deutsches Arch. f. klin. Med.) mentions the pathogenetic connection between tetany and the inhibition of parathyroid function, upon the basis of experimental and clinical observations as well as a study of the corresponding literature. If the thyroid gland and the parathyroids are completely removed for experimental purposes, the animal develops severe tetany. The same tetanic condition manifests itself in those cases where the parathyroids have been removed, the thyroid gland being spared as much as possible. It is a noteworthy fact that patients with congenital thyreo-aplasia present the symptoms of cretinism, myxodema, arrested growth of bone, anemia, atrophy of sexual organs, lowered vitality, etc., but they do not have tetany. This observation agrees with the fact that young laboratory animals, whose thyroid gland has been extirpated under preservation of the parathyroids, present the same symptoms of disease as thyreo-aplastic patients, without developing the phenomena of tetany. "Tetania strumipriva" of the human subject is dependent not upon the loss of function of the thyroid gland, but the loss of the parathyroids. This accounts for the fact that, on the one hand, no tetany follows the total removal of the thyroid gland, when one or more of the parathyroids have been left behind; whereas, on the other hand, tetany appears in those cases where relatively large remnants of thyroid gland have been left behind, provided these remnants do not contain parathyroid tissue.

The pathological picture of human tetania strumipriva presents a striking resemblance with that of idiopathic tetany. The conclusion is arrived at by the author that human "idiopathic" tetany, the tetany of

acute infectious disease, the tetany of pregnancy, the tetany of occupation, tetany in gastrointestinal disease, infantile tetany, etc., are all based, similarly to tetania thyreopriva, upon the loss of function of the parathyroids.

Three Cases of Fibro-Sarcoma of the Muscles of the Abdominal Wall.—Eccles (West London Med. Jour.) says that new growths of muscles are not common, although inflammatory effusions into muscular tissue are by no means rare. The cases occurred in women between the ages of 26 and 37 years, and in all there was no distinct evidence of previous injury. A fibrosarcoma of a muscle does not seem to be of such malignancy as a round-celled growth and the prognosis after removal is distinctly more favorable.

Case I occurred in a woman of 37. The tumor was in the left abdominal wall and was freely excised together with a broad strip of the rectus muscle. The edge of the oblique and transverse muscles was brought just beyond the linea semilunaris inwards to fill the gap. The wound healed well and there was no recurrence.

Case II occurred in a woman of 26 and was situated on the right side above the outer half of Poupart's ligament. The peritoneum was opened during the operation. The gap left in the abdominal wall was closed by bringing the outer edge of the rectus down to Poupart's ligament. The growth was a spindle-celled fibro-sarcoma.

Case III occurred in a woman of 35. The swelling was internal to the left superior iliac spine. The peritoneum was opened accidentally. The periosteum was removed with the attachment of the tumor to it. There was very great difficulty in closing the gap left.

Multiple Neuritis Following Pertussis.—Soniez (Casopis lekarn ceskych., 1906) says in 69 pertussis patients four cases presented various disturbances of the nervous system, three having eclamptic seizures, and one developing multiple neuritis. This patient was a boy two and a half years of age, from a healthy family. The whooping-cough lasted altogether only four weeks. In the course of the third week the child began to stumble, and could not rise without much difficulty. Finally, it became unable to rise without assistance. Later on, the hands also grew so weak that the child had to be fed. It could not hold its head up, and could not sit straight in a chair. Examination showed the presence of paralysis and atrophy of the muscles of the lower extremities, the trunk, and the upper extremities, with paresis of the respiratory muscles. The reflexes were absent as well as the sensibility in the paralyzed area, the mechanical and electrical irritability of the muscles equalling zero. Treatment with potassium iodide resulted in improvement.

Ganglion-Neuroma, with Description of a Case.—Gliuski (Przeglad lekeroki) says that true neuromata of ganglion are of very infrequent occurrence, so that their existence has been questioned. He was enabled to examine a specimen in the pathological-anatomical institute of the Krakau University. This specimen had been removed by Bogdenik from the neck of a girl ten years of age. The growth was of considerable size, measuring 9x6½x3½ cm. Macroscopically, the tumor could be regarded partly as a lipoma, and partly as a fibromyoma. Careful microscopical examination, however, showed the growth to consist exclusively of ganglion cells and nerve fibres. The nerve fibres were matted in various directions, and ganglion cells were arranged between them, either separated or in smaller or larger groups. The rest of the findings consisted merely of scanty cellular tissue and blood-vessels. The point of origin of the tumor was undoubtedly the cervical sympathetic; as indicated by the location as well as by the microscopical findings. The growth presumably originated during intra-uterine existence; for the patient's mother had noticed a nodule at the neck, which slowly increased in size, before the child had reached the age of seven months.

Relations of Gynecological Diseases to Neuroses.—Sutter (Monat. f. Geburts. u. Gyn.) mentions 315 cases of gynecological diseases seen by him. After operations all the specimens were examined microscopically, and the history and examination carefully recorded. He says that the social status of the patient has great influence on the occurrence of nervous symptoms; the lower in the scale of life the patient is, the less liable is she to neuroses. The longer the observer has known the patient the better is he able to find the etiological relations of the case. The author divides the neuroses into four classes: simple nervousness, neurasthenia, hysteria, and psychoses. Under nervousness he classes all patients in whom there is no appearance of illness, but quick, nervous speech, combined with palpitation, flushings, and other simple symptoms. Neurasthenia is of more severe type if there are easy fatigue, weakness, pain, headache, loss of sleep, sexual weakness. The whole appearance of the patient is that of a sick person and she is often melancholy, listless and has mental symptoms. This state is more frequent in men than in women, in whom hysteria is

more likely to occur. In hysteria there are disturbances of sensibility, changes in the reflexes, hysterical zones, ovarian pain, femoralgia and coxalgia. Psychoses are characterized by mental symptoms, hypochondria, hypochondriac melancholia, and mania. These groups are not sharply separated from one another. They belong together and are all psychic disturbances. The cause of all the symptoms is psychic, and psychic phenomena accompany the functional affections. Of the 315 patients observed there were 71.1 per cent. normal in nervous system, 27.9 per cent. psychically abnormal. In the better class of patients there was a much greater proportion of nervous symptoms. Accident and other causes outside of the genital system are now recognized as frequent causes of these symptoms, and the number of neuroses referred to genital diseases is diminishing in statistics. It is especially noticeable that the more severe gynecological diseases, such as carcinoma, are less frequently the cause of nervous symptoms. The severity of the disease and its consequent sufferings seem to shut out all other symptoms. Those diseases in which there is accompanying metritis, endometritis, and parametritis are prolific causes of nervous symptoms. Retroflexion is another of the chief causes, and so is myoma with metritis.

Treatment of Inversion of the Uterus.—Holzapfel (Zent. f. Gyn.) describes the technique used by him in replacing an inverted uterus. The placenta was removed by a midwife by the Crede method, and blood continued to flow from the uterus after its removal. Ergot was given freely without stopping the relaxation of the uterus. He saw the case at the end of three and a half days, pulse 110, genitals full of blood, abdomen tender and discharge fetid. The uterus was found inverted in the vagina. The operation of replacement is quite easy in a fresh case, but becomes hard when it has continued for some time, on account of the contraction of the cervical ring, and the impossibility of using more than one hand in the vagina to dilate it. By the help of an assistant to hold the uterus externally, even old cases may be replaced. He and his assistant each placed two fingers of one hand in the hollow formed by the inverted uterus, while the hand internally was used to push the fundus back through the ring of the cervix, the external hands being used to hold the organ in position. Each time that the fundus was pushed upward it fell back as soon as the pressure was relieved. The assistant then placed his fist in the hollow, and the writer grasped the abdominal walls and the anterior vaginal wall with the outer hand and, by holding the portion already pushed up, prevented the uterus from being drawn back. The cause of inversion is atony and weakness of the uterine walls. Slight pressure on the abdominal walls will cause the fundus to be pushed down into the vagina. Therefore, the third stage of labor should be carefully watched until firm contraction of the uterus has been obtained. In some cases in which the inverted uterus has become septic it is better to extirpate it than to replace it. Inversion is more common in primiparæ than in multiparæ.

Placenta Praevia.—Buerger and Graf, (Monatschr. f. Gyn. u. Geb.) review the results of 342 cases of placenta praevia. These cases occurred in the past fourteen years during which time 44,676 women were delivered. This would make the frequency of its occurrence once in 77 labors. Only 107 out of the 342 cases were carried to full-term (31.3 per cent.) The remaining 235 were for the most part confined between the seventh and ninth months of gestation.

As for the usual plan of treatment, version according to Braxton-Hicks was done in the great majority of the cases (83.8 per cent.) To the foot that was thus brought down was hung a small weight, in order that the breech might more effectually act as a tampon to check the bleeding. Occasionally, if the dilatation was insufficient, a metreurynter (Champetier de Ribes bag) was employed. In the majority of cases extraction did not at once follow upon version but was only resorted to after the breech appeared at the vulva. The duration of this period of dilatation varied from fifteen minutes to twelve hours. The average duration to the completion of the delivery in his cases was two hours and nineteen minutes. Only in three instances did the hæmorrhage continue in spite of version, and in these three extraction had to be resorted to at once.

The results of this form of treatment were excellent as far as the mother was concerned. Out of 342 patients only 20 died (5.85 per cent.) In all these cases labor had to be furnished by instrumental means. Of those who survived 286 (88.8 per cent.) were free of any fever during the puerperium. The remaining ones showed some infection of the genital tract.

Of the children the majority died (54.9 per cent.) This percentage varied, however, greatly depending on whether the children were premature and the placenta praevia a central one. Of premature children with central placenta praevia only 2 out of 14 survived. In full-term cases with

lateral placenta praevia the foetal mortality was only 22 out of 54.

They urge that such radical procedures as vaginal or abdominal Caesarean section are not justified, for while they might reduce the foetal mortality somewhat, they would be certain to increase the death-rate among the mothers to a far greater degree, and of the two the maternal life is certainly the more valuable.

Megalerythema.—Moussous (Gaz. Heb. des Sciences Med. de Bordeaux) reports the case of a boy of twelve with a rash which first appeared two days before, accompanied by slight disturbance of the general health and some discomfort in the throat. The face was uniformly red, hot, and slightly swollen (especially the cheeks). The nose, the neighborhood of the mouth, and chin were exempt, the rash was bounded by a wavy margin at the temples and ears, it did not extend to the neck. On the back and front of the trunk there were a few patches the size of a five-franc piece, slightly raised, bright red in color, with well-marked margins; in places the patches had united so that their edges were polycyclical. On the arms and legs the patches were more numerous. Pressure with the finger caused the color to disappear temporarily. The affected parts neither pricked, burnt, nor itched; there was, especially on the face, a slight feeling of tension and heat. The condition of the hands and feet resembled that of the trunk. The pulse and temperature were normal; nothing unusual was seen in connection with the mouth, throat, or conjunctiva. There was no running from the eyes or nose, the voice was normal, there were no rales in the chest and there was no enlargement of the lymphatic glands. Next day the rash on the face was paler; on the limbs the areas had faded at their centers, leaving more or less complete circles. In a few days the face cleared, while on the limbs, wavy lines were the final stages of the patches. At various times the rash, which had almost faded, returned (when the patient was warm in bed or from extra exertion). The rash disappeared in a week, nine days after its first appearance, and there was no desquamation. The viscera were normal, the urine was repeatedly examined and was always found to be normal. Ten days after the rash appeared on the boy it appeared on a sister, without any fever or feeling of ill health; the course of events was similar: the rash on the limbs first appeared on the parts near the trunk, and later the more distal parts were affected. A servant in charge of the children became affected eight days after the second case. He believes the condition a distinct morbid entity, intermediate between the infectious erythemas and the eruptive fevers. Various names have been given to this erythema, acute infectious, simplex, marginatum.

White-Wine Whey in Infant Feeding.—Still (London Lancet) says that among the many foods which are occasionally of value in infant-feeding, sherry whey, or "white-wine whey," as it is sometimes called, must hold a high place, not because it has any particularly large nutritive value, but because it combines certain properties which are of great importance under certain conditions. Like the ordinary whey prepared with rennet the whey made with sherry is easily digestible owing to the removal of the milk-curd in the process of preparation; and, like the rennet whey, it has also lost a large preparation of the milk-fat owing to its entanglement in the curd which was strained off. The curd, however, from sherry whey is flocculent and thus unlike the curd *en bloc* produced by rennet; the fat also for this reason is less completely entangled and the proportion remaining in the sherry whey is as high as that in a rennet whey, in which special precaution has been taken to liberate the fat so far as possible by breaking up the curd before straining. The writer's analysis of sherry whey, prepared as described, showed proteid 0.45 per cent., consisting almost entirely of the easily digested lactalbumin, fat 0.95 per cent., and there is also present sugar about 5 per cent. The sherry whey, therefore, is, like the rennet whey, a food low in nutritive value, but such as might be expected to agree well where there is difficulty in digesting the stronger preparations of milk. But sherry whey has other properties which do not belong to the ordinary rennet whey. The sherry which is used in its preparation gives to the white-wine whey its peculiar flavor which is said to be due to the presence of essential oils or volatile ethers in the wine, constituents which probably contribute to the carminative effect, which is one of the virtues of this food. Sherry wine has also a markedly acid reaction, and it would seem from the good results of buttermilk and of other preparations in which lactic acid fermentation has been artificially induced in milk that acidity of the food, so far from being harmful, is sometimes beneficial in infant feeding. The most satisfactory method of preparation is: ten ounces of milk are heated until just boiling, then two and a half ounces of cooking sherry are added and heat is applied again until the mixture begins actually to boil, when it is removed from the fire and allowed to stand three minutes; the curd is then strained off through

a double layer of muslin. The conditions in which this food is suitable for an infant are those in which only small quantities of food can be tolerated and where a stimulant is necessary. Where there has been much vomiting, with or without diarrhea, and the infant has already been fed for some hours with albumen water or veal broth in small quantities, sherry whey often makes a useful step toward the return to milk feeding; sometimes, indeed, in the acute stage where there is still much vomiting a drachm or a few drachms of this food will be retained in the stomach when other foods have been tried in vain. In cases where owing to difficulty of milk digestion there has been chronic vomiting and the infant has become feeble and exhausted, feeding for two or three days on small feeds of sherry whey alone, and then on alternate feeds of sherry whey and fully peptonized milk, is sometimes of great benefit. In the common cases where food after food has been tried and the infant has become emaciated and screams with flatulence and colic after meals sherry whey sometimes has a striking effect in reducing the flatulence and colic, and so relieving the child's distress; in such cases it may be given at alternate feedings for several days, and then two or three times a day. Excellent results may be obtained from it in the case of premature or very feeble newly born infants. The quantity of sherry whey which can be given is limited chiefly by the proportion of alcohol which it contains. It is not intended for prolonged use but as the only food for a week or ten days, and when it is given at alternate feedings only it can be continued if necessary for two or three weeks. To an infant six weeks old a tablespoonful can be given every half hour or every three-quarters of an hour, and the amount and interval gradually increased until two ounces are taken every two hours. The quantity, however, as a rule, is determined less by the age of the infant than by the general condition and the degree of tolerance shown by the stomach. At any period of infancy it is seldom desirable to exceed from two to two and a half ounces of sherry whey at a feed; but in exceptional cases as much as three ounces every three hours may be given to infants about six months old, and even four ounces every three hours to an infant twelve months old for two or three days, with great benefit.

Mental Strain for Children.—Czerny (Deut. Med. Woch.) says that people exaggerate the importance of "school strain." They ascribe to the school what is really the result of the home environment. The mental strain is intense during the years before the child enters the school if it is much with adults. It is constantly asking questions and learns something from each answer, but no one thinks of measuring or shortening the hours of this activity of the child's brain. Adults sometimes answer a child's questions all day long and merely rejoice in its inquiring little mind. In this way the child soon grows out of its childlike naivete, and signs of neuropathy develop which are falsely ascribed to "school strain" after the child enters school. The most effectual remedy is to allow children to grow up in the companionship of children, and to reduce their association with adults to the minimum. When children play together the demand for toys and change of amusements is much less than for one child alone, and there is also the possibility of many harmless games and of cultivation of the will. Children playing together have red cheeks while the child associating with adults does not get the same exercise and is pale. This pallor is a sign of mental strain. The excitement that reddens a child's cheeks is harmless. A child with a private tutor has to pay stricter attention in one hour than during the four hours of a public school, and he has more unoccupied time. This aids in developing a neuropathic tendency. The meals, the bath, etc., become important events. Symptoms of hysteria frequently develop in such children in connection with some bodily function.

Albuminuria and Nephritis in Early Infancy.—Ballico (Rivista di Clin. Pediat.) reports his observations on seventy infants during their first year, suffering from various complaints, and in twenty-three of them noticed renal complications, i. e., in 32.8 per cent. In three cases he found simple albuminuria. Most cases occurred during gastro-intestinal affections—ten in thirty—which fact he explains by supposing that the toxic substances which are continually accumulating in the intestine must be eliminated by the kidneys, which for a certain time and in a certain measure effect this; but when too much is thrown upon them they become exhausted and react, and thus is produced simple albuminuria in some cases, but usually a true acute renal inflammation. Another question discussed is that of the existence of renal change without albuminuria, the importance of which is evident when one considers that its admission implies that a simple chemical examination of the urine is not sufficient for an exact diagnosis. In medical literature cases of chronic nephritis without albuminuria are relatively frequent, proving that no constant relation exists between the quantity

of albumin and the degree of renal lesion, or even, according to Dieulafoy, that albuminuria is not a reliable symptom for the diagnosis of nephritis, as it may be temporarily or entirely absent. Absence of albumin may even occur in acute renal inflammation. Philipps, in an epidemic of scarlatina, observed cases in which albumin was absent and nephritis found at the autopsy, and Henoch a case of scarlatinous anemia without albumin or casts where nephritis was found. Out of the seventy urines examined, in four instances the author could not find the least trace of albumin, although examination of the sediment showed renal cells and casts, and in two cases red blood cells and leucocytes. These four infants, aged 33 and 42 days and 7 and 12 months, suffered, one from rickets, two from dyspepsia, and the other from both these; they had no edema anywhere, nor any manifest objective lesion or antecedent illness to cause any suspicion of renal alteration; the probable diagnosis of nephritis had to rest alone on the microscopical examination of the sediment. Cavazzani and Ferrarini, experimenting with intra-peritoneal and subcutaneous injections of chloral and pyrogallic acid, confirm the possibility of the existence of serious lesions of the renal epithelium without albuminuria, and consequently these lesions are not alone sufficient to cause the passage of albumin into the urine, and therefore its absence does not euthorize an absolute exclusion of anatomical lesions of the kidney. There are cases in which, notwithstanding repeated examination of the urine, neither albumin nor morphological elements are found. There is no doubt but that both may be temporarily absent at the same time and make their appearance suddenly only in the last days of the illness at the commencement of anemic symptoms. This clearly shows the importance of accurate and systematic examination of the urine in infants, especially when one thinks that a large number of cases of chronic nephritis diagnosed *a frigore* in adults are only the after-effects of a toxic or infective complaint of infancy. He considers that renal complications in the first year of life are very frequent on account of the incomplete structural and functional development of the kidney, and of the ease with which this organ is exposed to work that is incompatible with its delicate structure; that in the majority of cases the renal lesions are determined by affections of gastro-intestinal origin, which in young infants are very frequent and somewhat serious; that sometimes they are revealed by a simple albuminuria, but generally examination of the urine shows the existence of a true nephritis; that renal changes may exist without the least trace of albumin and without any objective symptom to call attention to it.

Relapses in Diphtheria.—Menabuoni, (Rivista di Clinica Pediatrica) shows that the interval between two attacks of diphtheria is very variable, ranging from a few months to several years; that the hypothesis of some who assert that the region locally affected is different in each attack cannot be confirmed, for in 18 of his cases it was laryngeal diphtheria that his little patients had in both attacks. Although he admits it to be the rule that the second infection is the milder, in 7 of the 18 laryngeal cases was the latter the more grave instead of the former. The percentage of relapses he puts at 1.7 per cent., which does not differ widely from those of other authorities. The writer says that it has increased since the use of serotherapy and this suggests to him that the antitoxin has little efficacy over the pathogenic agents themselves, and by saving more patients it tends indirectly to propagate the malady, at the same time rather increasing the individual susceptibility to repeated infections.

Pubiotomy.—Henkel (Ztschr. f. Geburtsh. Gynaek.) contrasts this operation with symphysiotomy. He mentions the following objections to the latter: The joint being wounded where asepsis is difficult to maintain, fibrous union may occur, which may not be an advantage, as it may cause difficulty in walking. On the other hand, bony callus is occasionally formed, with consequent immobilization of the joint. In pubiotomy the danger of hæmorrhage is less, the urethra and bladder are not so liable to be wounded, and firm union occurs with certainty. The technique of the operation is described in detail. Henkel has had seven cases, and in all the left pubic bone has been divided, irrespective of the position of the occiput. The writer prefers version to forceps, the patient being placed in Walcher's position. Six of the patients were able to walk during the third week after operation. The seventh died from septic infection. The author gives as possible complications, hæmorrhage from the clitoris and veins in the broad ligament, and laceration of the vagina. This last is almost certain to occur in a primipara, and in such patients the operation is contra-indicated. Pubiotomy may be performed in cases of flat pelvis with a conjugate from 3 2-5 to 2 7-10 in., but at the lower limit, provided the child is small, and in cases of generally contracted pelvis with conjugate down to 3 inches. He considers the opera-

tion one of great value, but only to be carried out with skilled assistance.

The Treatment of Acute Gastrointestinal Disease in Infants.—Klautsch (Der Kinderarzt) states that we cannot as yet make a division of these cases based on bacteriological findings, but must content ourselves with a classification based on anatomy and clinical symptoms.

The writers' treatment falls under the following subdivisions: A light form, the dyspepsia of infants, and a severer form, enteritis. Follicular enteritis and cholera infantum are not discussed at length, but their relationship is pointed out as a possible sequel to the above diseases.

The dyspeptic type is treated in the main by dietetic management, and often is the only measure necessary. "Medicine here would be of no use without dietetic management." Stop all food for the first twenty-four hours, substituting boiled water, and giving it not oftener than every three hours and not more than one litre per day. Castor oil is preferred to calomel if a purge seems necessary; if calomel is necessary large doses are recommended, 0.04-0.05 every two hours until the characteristic green stools appear. Rectal irrigation with saline solution may be used instead of a purge.

If there is persistent vomiting, stomach washing with a 1 per cent. saline solution, or 1 per cent. solution of Carlsbad salts.

A gruel is given before milk feedings are resumed, and then a gruel containing a small quantity of milk. If watery stools are persistent, tannalbin 0.5 four or five times a day, or colloidal bismuth oxid in a 10 per cent. solution in doses of 5 to 10 c.c. three or four times a day.

In enteritis, collapse and the loss of water are the added dangers, and are to be contended against. In addition to the measures above given, camphor, 0.1-0.2, two or three times a day hypodermically, and later 0.05, three times a day, are injected. The loss of water is combated by Cantani's salt solution, 10 per cent., 125-150 c.c., twice a day, at body heat. The temperature and cerebral symptoms are combated by the usual measures. In many cases it is difficult to decide when to resume the milk feedings, and most careful judgment is required at this point.

Prevention in Children of Disease in the Adult.—Batta (Gazetta degli Ospedali) mentions the great importance of detecting the tendency to certain affections in their early stages and curing them before they become irreparable. Scoliosis, for instance, is seldom diagnosed until the deformity is well established. Spasms in a child are attributed to worms or other causes, not to latent epilepsy, until when grown to adult age he has the typical epileptic seizure. Bronchial asthma in the adult may have heralded by slight asthmatic disturbances in the child to which no one paid attention. If the course of ideas, slight, guided psychic deficiencies, etc., in children were better studied and many adults, he says might escape insanity later. Umbilical hernia in the adult is the result of umbilical hernia in the child, which, although possibly healing spontaneously, leaves a predisposition for later recurrence. The same might be said of inguinal hernia. The daily bath for infants may induce icterus later in the predisposed if the temperature and other conditions are not carefully regulated. As the child grows, attention should be paid to its harmonious development, whether the great cavities of the body are developed proportionately to its size, etc. The physician watching over the development of a child can guide it to the harmonious proportion between its various organs and parts, which is the best safeguard against disease. Preventive medicine has to be based on accurate observation to be effectual. Its field is particularly encouraging in children as they are in the formative period, but it requires a constantly vigilant eye and a skillful hand. The physician, becoming counselor in hygiene for the family, can educate the parents to direct the steps of their children into the ways of health.

Traumatism as a Case of Appendicitis.—Southam, in the London Lancet, makes some very pertinent remarks on this subject in a paper read before the Manchester Medical Society. Deposits of inspissated fecal matter, or even calcareous concretions, may be present in the appendix for a considerable time without causing any symptoms; but if violence is applied to the abdomen in the region of an appendix containing a fecal concretion it can readily be understood that the wall of the appendix at this spot, probably already somewhat damaged by the presence of the concretion, then becomes so injured that it suddenly ruptures, or an attack of acute inflammation is set up which may quickly terminate in ulceration and perforation. It is also possible that an appendix which is completely stenosed at some point in its course, and distended beyond with a mucoid or muco-purulent fluid —a condition which is not at all uncommon —may suddenly rupture as the result of violence applied to the abdomen, and its contents become extravasated into the peritoneal cavity. It is also probable that without the application of any direct violence traumatism may excite an attack of appendicitis in another manner; e. g., a severe

strain, by causing a sudden and forcible contraction of the abdominal muscles, may separate or break down adhesions between the appendix and the abdominal wall, causing an extravasation of blood either into or around the appendix, or possibly producing a rupture of its wall, thereby allowing its contents to escape.

Theoretical and Practical Consideration of Head's Zones in Visceral Disease.—Kast (Berlin klinische Wochenschrift). Head, according to the author, claimed to have demonstrated that certain areas of increased sensitiveness to pain and heat sensation in the skin corresponded definitely to disease of various viscera. The zones, he claimed, corresponded to different spinal segments, and do not follow the distribution of the peripheral nerves. Their mode of origin he assumes is, so to speak, a psychical deception. We are devoid of pain sensation conveyed directly from the internal organs, but the sensory nerves running from the skin and our subjective sensations may interpret impulses in the one as pain sensations in the other referred pains. He says that in many instances there is hypersensitiveness, so that impulses which, under ordinary circumstances are not painful, are interpreted as such. This condition he terms a local neurasthenia. The writer points to the importance of recognizing the general instability of the nervous centers in the development of the hyperesthetic areas. They are certainly better defined in neurasthenic individuals. In a normal person the continuous discharge of centripetal impulses from the internal organs runs to the center, but whatever changes they produce their effects remain in the subconscious sphere. Under conditions of increased sensitiveness to external and internal stimuli (neurasthenia), these impulses enter the conscious sphere and are frequently transformed into painful sensations. Lenander has shown that one may handle or insult in various ways the abdominal viscera without producing pain sensation; that pain sensation can be evolved only from the perietal peritoneum. This explanation of the hyperalgesic skin areas is the interstitial inflammation about and through the spinal nerves caused by a lymphangitis spreading from the diseased organ. He says that the skin zones do not follow the distribution of the spinal nerves, and that, if such a perineuritis existed, it would give rise to severe neuralgic pains.

As interesting as the discovery of Head's zones are, they have not proved of great practical value. In the first place, their occurrence is not constant. They are frequently present in gastric ulcer, particularly in anemic nervous patients, and in instances of much pain. But in some of the most evident cases they are absent. The same is true of appendicitis and cholecystitis. In 12 cases of gastric carcinoma, all associated with a great deal of pain, Head's zones were present on only one.

Miscellaneous.

American Medical Editors' Association.

The 38th annual meeting of this Association will be held at Atlantic City on Saturday, June 1st, and Monday, June 3rd, 1907, with headquarters at the Marlborough-Bleinhem Hotel. This active Association now numbers nearly 150 members with applications in hand for action at the coming meeting. An interesting program has been prepared and the following are among the papers to be read:

President's Address, The Future of Medical Journalism. By James Evelyn Pilcher, M. D., Ph. D., L. L. D., Carlisle, Pa.

Shortcomings of Physiology, The Chief Obstacle to Medical Progress, The Need of Editorial Intervention in such Questions. By C. E. deM. Sajous, M. D., Phila., Pa.

How can we Make Medical Journalism Better? a. For our readers. b. For our advertisers. c. For ourselves. By W. C. Abbott, M. D., Chicago, Ill.

A Word or Two from an Ex-Journalist, by Samuel W. Kelley, M. D., Cleveland, Ohio.

The First Medical Journals. By O. F. Ball, M. D., St. Louis, Mo.

The Psychology of Medical Journals from the readers Standpoint. By T. D. Crothers, M. D., Hartford, Conn.

Further Reflection on the Official versus Independent Medical Journals, One Years History. By Wm. J. Robinson, M. D., New York City.

Journalistic Suggestions from a Semi-Disinterested Standpoint. By Wm. Porter, M. D., St. Louis, Mo.

The Situation. By C. F. Taylor, M. D., Philadelphia, Pa.

Some Aspects on Medical Journalism. By W. F. Waugh, M. D., Chicago, Ill.

The Neglect of American Mineral Springs and Climatic Resorts by our Medical Press. By G. T. Palmer, M. D., Sprinfield, Ill.

Some Feeble Remarks. By W. A. Young, M. D., Toronto, Ont.

The American Medical Editors Association, Past, Present and Future. By Joseph MacDonald, Jr., M. D., New York City.

On account of the largely increased membership of this Association it is anticipated that the coming meeting will exceed any prior meeting in point of attendance.

The Annual Editors' Banquet which is

always the social event of the week will be held at the Marlborough-Blenheim Hotel on Monday, June 3rd.

Powder Burn of Face.

About a year ago I was called in a hurry to relieve the awful suffering of Carl Rucker, of this city, 10 years old, who when playing with other boys exploded about two ounces of coarse black shooting powder in a little earth mound, and not being quick enough to turn away got the most of the discharge into his face; even the conjunctivae of both eyes were blackened, and from the burn and subsequent inflammation shut tight; one of the ears also got burned very badly.

To extract the powder from the skin I have in years gone by applied a thick layer of castile soap made into a sort of dough, and as I had to deal here with the inflammation and pain besides, I scraped a cake of shaving soap, mixed it thoroughly with Antiphlogistine, and applied it about one half inch thick over the face and ear, leaving a hole for the eyes, nostrils and mouth. About one-half hour later the little patient, a very sensible child, rested very comfortable, free from pain and slept a few hours soundly. About 24 hours later I removed the whole mask from the boys face, and to my great delight and surprise the application had drawn out every kernel of the powder. The inflammation had been greatly reduced, pain was all gone and the face appeared almost natural again with the exception of the sclera of both eyes, which I treated with a solution of cocaine adrenalin.

Another remarkable circumstance is the fact that the boy at the same time got entirely rid of his freckles, not a trace of the latter could be detected.

For about a week the face got anointed with cold cream twice daily, and being well was discharged as cured.—E. Kuder, M. D., Coffeyville, Kan.

Aseptinol Mfg. Co.

Gentlemen: I have used both your Ungt. and Pulv. Aseptinol Comp. in a number of cases with the best of success. I recommend them to the profession and feel sure if they will give them a fair trial they will keep them on hand to use in their practice.

Yours truly,

W. O. Bunnell, M. D.

Wilkesbarre, Pa.

Report of three first cases I used Aseptinol on.

Case No. 1.—Mrs. K., aged 43, white, married and the mother of three children. She was suffering with Leucorrhoea, great quantity discharge, limbs covered with ulcers. She also had congestion of the womb. I gave her the Pulv. Aseptinol as a wash, also to wet cotton and apply to the womb and leave in 12 hours, then use wash and apply again. For the ulcers I gave her Ungt. Aseptinol to apply locally. The result was marvelous, for in three weeks she was nearly well and had gained in strength and flesh. She had no discharge, very little congestion and the ulcers cured. She was very thankful for what I had done for her.

Case No. 2.—Mr. H., age 30, white, married. He was suffering from a large ulcer on right forearm, which he had for the past five years. It was as large as a silver dollar. I washed with a solution of Pulv. Aseptinol and applied the Ungt. Aseptinol on gauze to the ulcer every night, and at the end of four weeks it was cured.

Case No. 3.—Miss Z., age 24, white, unmarried. She was suffering with Pruritus Labii and it was a very bad case. I gave her a wash of Pulv. Aseptinol and then had her apply Ungt. Aseptinol Comp. after the parts were washed clean, and in five days she was cured.

Some Modes and Means of Nutrition.

In beginning the course of lectures on physiology in the University of Manchester on Oct. 3, Prof. W. Stirling delivered a lecture on "Means and Modes of Nutrition," with special application to animals. Bernard pointed out the fundamental identity in the nutritive process in animals and plants, and has shown the large part played by ferments in both vegetable and animal nutrition. When we trace the story, however, we find that Count Gleichen Russwurm in 1777 fed infusoria artificially with carmine, and saw that it was ingested; he had struck upon a fact which it required the genius of a Metchnikoff to apply. Corti observed that the infusorian Stylonichia when deprived of food became more transparent and less granular. Ehrenberg by repeating the carmine feeding experiments was led to his almost forgotten polygastric theory as applied to infusorians. Haeckel long afterward when injecting an invertebrate found that the leucocytes of its blood took up into their bodies the black particles of the injection. Cohnheim utilized this fact in his classical experiments on inflammation. It was, however, the study of the daphnia, a water flea infested with the spores of Monospera, that led Metchnikoff to his famous theory of phagocytosis. It is not improbable, as Haeckel suggests, that the sensitive and traveling leucocytes of our invertebrate ancestors have powerfully cooperated for millions of years in the phylogenesis of the advancing animal organization. These "eating cells" do exactly what ameba and its allies do—digest their

food by the aid of intracellular ferments. The observations of Krukenberg, Fredericq, and Verworn, and the pupils of Metchnikoff, and in our own country those of Miss Greenwood, Dr. Griffiths, and others, have made us familiar with intracellar digestion as it occurs in protozoa and cœlenterates. Engelmann observed that blue litmus particles became red in the vacuoles of ameba and its allies. Subsequent observers used neutral red and other sensitive reagents for the same purpose. It is a relatively easy transition from intracellular to extracellular digestion. Both depend on the existence and activity of specific enzymes. The intracellular digestion of protozoa serves a double purpose: the nutrition of these organisms and the protection of them against infective parasites. This latter idea led to the theory of natural immunity due to cellular digestion. The problem of digestion is intimately related to that of chematoxis, or more especially to that variety called by Stahl "trophotropism," both positive and negative. It would seem that ferments characterized by specific action play the leading role both in intracellular and extracellular digestion. Early in the zoological scale nature introduces the barbed dart to impale and to paralyze the victim. Subtle poisons are used to kill or to paralyze the victim which si destined to form food for the offspring of certain insects. The poisonous substance is usually injected into the most vulnerable part of the nervous system, whereby the victim is apparently dead yet liveth, so that nature has found a means of keeping the "meat" fresh for the ravenous grub by a method in part comparable to the cold-storage process; for the larvæ of certain insects the prey is kept fresh until such time as the gr ub is ready to use it.—The London Lancet, Oct. 2, 1906.

Chronic Ulcer and Calcium Iodide.

T. H. Hunt reports a case of chronic ulcer worthy of record partly from the simulation of epithelioma, but chiefly as showing the beneficial effect of calcium iodide.

The patient was a healthy woman aged nineteen, who came to the Halifax Infirmary suffering from an ulcer in the left groin. The history was that it began two months before as a boil, which burst, leaving an open sore. The edges were hard, everted, inflamed, and raised one-eighth of an inch above the surrounding skin. No other sores could be found, and no history of syphilis obtained. The ulcer was excised, but three days later it was found that all the stitches had cut out, that the sore was consequently much larger, and that the edges both of the wound and the stitch tracks had taken the appearance of the original sore. Portions of the ulcer were separately examined by expert pathologists at Leeds and London, one saying it was probably epitheliomatous, the other that it was simply inflammatory. The patient was now put upon other treatment—potassium iodide, compresses, and treatment by means of X-rays, but all with very little effect. Calcium iodide was then given a trial, 3 grn. thrice daily. In a few days improvement was evident, and this continued for a few weeks until the patient was discharged with the wound soundly healed. Two months later there was no discomfort nor sign of recurrence.—British Med. Jour., Dec. 15, 1906.

Milk and Tuberculosis.

Marchand refers to the work of various modern investigators in this subject. A number of authorities, including Calmette and Guerin of the Pasteur Institute, have concluded that the principal portal of entry of tuberculosis into the organism is the intestine, and that this disease can be introduced by the ingestion of milk taken from tuberculous animals. Every infectious malady of the cow renders its milk dangerous to the health of the consumer. Even the food eaten by the cow influences the quality of its milk. But cooking the milk—sterilization, pasteurization, or boiling—distinctly modifies its constitution. Such a process tends to convert the lactose into caramel. A part of the albuminoid element it makes insoluble. It affects as well varioas salts contained in the milk, especially those necessary to the bony tissues of the new-born. Even if it kills the injurious microbes, it has, nevertheless, the disadvantage of destroying the natural digestive ferments which the milk contains, besides changing its taste. Recent investigations show that next to maternal milk normal raw milk from a healthy animal, and naturally sterile, offers the best conditions of alimentation for young children. It is also the best form for patients or old people. The writer calls attention to the importance of employing tuberculin in order to distinguish diseased animals from healthy ones. The greatest care should be taken to use the milk of healthy cows only. —Le Nord Medical.

Pubiotomy.

Gigli believes that we have arrived at a new era in obstetrics owing to the important and precious discovery of pubiotomy. He thinks that he has reached the method of cutting the pelvic ring that gives the best possible prognosis, because it involves separation at the most favorable point of the pelvis, that point which results in the least

danger of infection, the quickest healing, and the firmest union. He hopes to be able to convince his colleagues that symphyseotomy, exposing the woman to grave dangers of infection and of inability to walk as it does, has no right to exist, and that they will all desist from performing it and use his method. He reports a series of 300 cases of pubiotomy with a morality of three per cent., and the cases that were fatal were all infected before the operation. If we leave out these cases we have a mortality that is reduced to zero.—La Riforma Medica.

Malignant Endocarditis Successfully Treated by Artificial Autoinoculation.

Under the fully descriptive title "A Case of Infective Endocarditis Cured by the Inoculation of a Vaccine Prepared from Organisms Found in the Patient's Blood, the Inoculation Being Regulated by the Examination of the Opsonic Power of the Patient's Serum," the most noteworthy communication thus far made to the rapidly increasing literature attesting the remarkable efficacy of opsonic therapy is presented by Barr, Bell and Douglas.

The patient, a young woman of 25, was originally under the care of Sir James Barr and Dr. W. Blair Bell; later Sir A. E. Wright was called in consultation and directed the treatment by the inoculation method, the details of which, including the twice-daily taking of the opsonic index, were carried out by Wright's associate, Captain S. R. Douglas. On Jan. 13, 1906, the first clinical observation was made, the young woman reporting that on Jan. 5, while staying in the country, she had contracted a slight sore throat accompanied with some vomiting; Jan. 8 she felt shivery and ill, and on the 12th a swelling appeared on the left side of the neck. The swelling, probably a periadenitis, disappeared spontaneously in three days. On Jan. 13 the temperature was 105 degrees F., and continued so for three days. Nothing abnormal was found in the heart at this early stage. Beginning Jan. 16, antistreptoccic serum in 10 cubic centimeter doses was injected, to be repeated daily or once in two days till the 28th, with no appreciable result. The temperature ranged from 90 degrees to 104 degrees. Rigors were frequent. After about a fortnight, symptoms of endocarditis of the right ventricle were detected; these gradually became more pronounced; there was dilatation of tricuspid orifice accompanied by a slight murmur, and pulsation in the veins of the neck, and in the liver, which became large and rather tender. After the rigors, which occurred frequently, there was a troublesome cough, with a little scanty expectoration. The left ventricle was uot enlarged. and there was no enlargement of the spleen. The urine at this time was simply febrile urine, but later it contained a cloud of albumin. On Jan. 26th a small abscess was formed in the foot and the pus showed the presence of a streptococcus in short chains. Cultures made from swabs from the throat and nose threw no light on the matter. Attempts to make cultures from the blood proved futile. On Feb. 2d the patient complained of pain in the right side. This was the commencement on a slight pleurisy, during which some effusion occurred, but which gave rise to to no serious trouble. On Feb. 12 a pure culture of streptococcus was obtained from a specimen of blood withdrawn at the commencement of a rigor. This culture was sent to Sir A. E. Wright and from it a vaccine was prepared. On Feb. 22 the first dose of vaccine was injected after the opsonic index had been examined and found to be 0.4.

After an inoculation of 10,000,000 dead streptococci, the opsonic index rose without any appreciable negative phase in eight hours to 1.4 and remained above the normal for the three following days. During this period the mean daily temperature shows a marked fall. On the opsonic index reaching the normal line another inoculation was given. the dose being 12,500,000. This inoculation was followed by a very slight negative phase, after which, however, the index rose rapidly to 2.1, to fall with equal rapidity to 1.3 on the third day after inoculation. In order to keep the index above the normal as long as possible, another inoculation was given, the same dose as the last; and as but a slight negative phase had been produced, this dose was repeated the next day. On March 3d (the day following the inoculations) the index was normal, but rose rapidly to 2.4, keeping the normal line for the next six days. The mean daily temperature, which up to March 2 had steadily fallen, rose, reaching the level occupied before inoculations were commenced.

On March 6th it was, however, noticed that a thrombus was commencing to form in the left iliac and femoral veins. To prevent the spread of the thrombus and to secure, if possible, the snrinking of the clot, large doses—from 30 to 60 grains—of citric acid were given every four hours. This treatment was so successful, apparently, that there was at no time any marked degree of edema in the limb affected. Coincidently the temperature again dropped. A further inocculation of 12,500,000 was given on March 8, as the opsonic index had dropped to 0.7. On March 11 the index had risen to 1.39, when another similar

dose was given. This caused a slight negative phase, but the power quickly rose to 2.0 on March 14, on which day a further inoculation of 6,000,000 was given. This caused a very distinct fall in the opsonic index and unfortunately a dose of 6,000,000 was again given on the 16th, which caused the index to drop below the normal line and the temperature, which had remained normal for 24 hours, to rise above 105 degrees for a short period. This return of fever was, however, only temporary, for with the rise of the opsonic index the temperature again became normal and there was no further rise.—London Medical Lancet.

Functional Albuminuria in Athlethes.

Collier has observed for a number of years that a large proportion of the young men at Oxford who wished to take part in athletics showed pronounced albuminuria after exercise, though the morning urine was free from albumin. It was formerly his habit to dissuade these men from violent physical exertion, on the supposition that the condition indicated an insufficiency of the renal blood vessels. A number of the men consulted well-known specialists, who invariably concurred in this view, and insurance examiners usually refused such subjects. The observation that such men as disregarded his advice and went in for rowing, running, etc,, were not in the least injured thereby; that treatment had no effect in the condition, and that such patients as he was able to follow up later in life ultimately showed spontaneous cessation of the albuminuria, led Collier to undertake systematic examinations of the college athletes, to determine the frequency of albuminuria. He found that in more than 50 per cent. of the oarsmen, after the ordinary training exercise, the urine showed considerable amounts of albumin with the cold nitric acid or heat and acetic acid tests, while after severe rowing every member of the crew showed it. A smaller number of the runners was examined, but the findings were the same, with the albuminuria rather more marked than in the oarsmen. He was unable to find that any of these men suffered any definite injury from their indulgence in athletics, and the albuminuria after exercise was not found in those whom he had the chance to examine later in life. An inquiry into the after-health of 294 men who had formerly taken part in the inter-university boat race showed that their chance of long life was better than that of the average man, although it is to be assumed that the percentage of functional albuminuria was as high in them as in those examined.

Collier concludes that albuminuria in a young man, after severe exercise, if it be not present after sleep or meals, is not an indication of weakness or disease, and that insurance companies are wrong to reject such candidates.—Brit. Med. Journ.

On account of the change of date of the meeting of the North Carolina Medical Society to June 11 to 13, the Board of Medical Examiners of the State of North Carolina will meet on Wednesday, June 5th, at Morehead City, N. C. It is necessary that all applicants for examination shall be present and register for examination on Wednesday the 5th, the first day of the meeting.

Hypodermic Injections of Sea Water.

P. Schivardi describes the use of injections of sea water for scrofula, tuberculosis, and similar conditions, which has been attempted since 1904. As used at present the water is obtained in the deep sea, far from any river, and will keep pure for some days. It must be sterilized before use and diluted with freshly prepared distilled water. One part of sea water is used to three parts of distilled water. It has been found better to use small injections daily rather than larger ones at longer intervals. The temperature of the injections should be that of the body, and syringes of metal or rubber should not be used. Five or ten centigrams of isotonic marine serum are injected at once. There is no reaction, but thirst is produced which produces diuresis. The best place for injections is the anterolateral region of the abdomen. Aseptic precautions are observed, and local massage follows, The results of such treatment have been most encouraging.—Gazetta Medica di Roma.

The secretary of the Mississippi State Board of Health reports the State to be in an exceptionally healthy condition. The smallpox contagion has abated in many communities, where it was reported during the winter. The disease is still present in mild type in a few localities in the delta.

The first annual commencement exercises of the Mississippi Medical College, Meridian, were held March 30, when a class of 22 received diplomas. Dr. William W. Hamilton, president of the faculty, presided; Dean Nathan L. Clark gave a short historical review of the institution; Mr. Edwin McMorries, president of the board of trustees, awarded the diplomas, and Dr. W. T. Lowry, president of the Clinton (Miss.) College, delivered the annual address.

At the annual meeting of the Attala County Medical Society, held in Kosciusko, Mississippi, March 18, the following officers were elected: President, Dr. Edward C. Coleman, Kosciusko; vice-president, Dr. Charles F. Carnes, Kosciusko; secretary-treasurer, Dr. John H. Portwood, Kosciusko, and censor, Dr. Thomas F. Turner, Smyrna.

The State Hospital Commission, recently created by the Legislature, met in Raleigh and organized by electing Charles A. Webb, president, and Dr. J. W. McNeill, Fayetteville, secretary, The commission has arranged for the purchase of the Grimes land consisting of 1,200 acres adjacent to the Central Hospital for the Insane, Raleigh, with the idea of making extensive additions to the institution on the colony plan. The Legislature has placed $500,000 at the disposal of the commission for the improvement and extension of the State's facilities for the care of the insane.

The date of the meeting of the Medical Society of North Carolina, at Morehead City, has been changed from May 28 to 30, to June 11 to 13. This will allow the members to attend the meeting of the Southern Railway Surgeons at Washington, May 28 to 30; the Tri-State Medical Society at Norfolk, June 2 to 4, and the American Medical Association at Atlantic City, June 4 to 7.

Dr. James McKee has been re-elected superintendent of the Central State Hospital for the Insane, Raleigh, and Drs. Edwin B. Ferrebee and Charles L. Jenkins, assistant physicians, for a term of four years.

An association journal is the organ of the association by which it is published, and as such is supposed to be the representative of the views, culture, and ethical standard of the membership. It follows then that the advertisements admitted to its pages, being approved by the association, as shown by their acceptance, receive thereby the endorsement of the association. This necessarily applies to the entire membership, which thus publicly assumes responsibility for every advertisement. This, therefore, carries with it the obligation, on the part of the officers of the association and its official organ, of refusing every advertisement to which any member may object; for no association has the right to compel any member to give his endorsement against his will.

With the independent medical journal the situation is entirely different. Its subscriptions being voluntary, no subscriber lends the endorsement of his name to anything appearing in that journal. He simply buys and pays for the journal as he would buy a ham. It is advisable that in such independent journals the widest latitude be allowed in the admission of advertisements, since articles to which one reader might object may appeal to many others as acceptable. If a man goes to a hardware store for an auger, he need not object to dealing at that store because it also keeps lawn mowers, for which he has no use. The physician should, in fact, expect to find in the "ad." pages of the independent medical journal everything that can legitimately be tendered the physician as such.

The independence of such a journal being its primary characteristic, the personal preferences of its managers should not deprive readers of the opportunity of free choice among any and all articles proffered them. In fact, independence should characterize this journal, as the unanimous endorsement by the membership characterizes the official organ.

We thus have two classes of medical journals. To the advertising pages of the one should be admitted a limited number of advertisements in certain unobjectionable lines, this limitation and endorsement justifying the managers in demanding an exceptionally high price for the advertising space; also justifying advertisers within the limited line in paying the price required.

The advertising proper in independent journals should have the widest possible latitude. Practically the only limits should be those of legal and moral restraint (honesty). Within these bounds it should be the efforts of their managers to present in their advertising pages every legitimate article which any physician can use in his practice, or which he may consistently recommend—from aconitine to steam plants and razors.

For the reasons above given it is obviously preposterous to ask the independent medical journal to assume the same conditions as the official organ. There is not the slightest justification for the latter to assume any airs of 'superior righteousness,' as occupying a higher ethical plane. To be square and honest is the whole thing.

Considering the responsibilities of their position, we find the official journals of medical organizations lamentably low in their ethical standard; every last one of them containing advertisements to which a large percentage of the membership may and ought to object. On the other hand some independent medical journals have evidently been 'stung' by the reproach of low ethical standing, and have excluded many advertisements which they as independent journals should have accepted.

The 32nd Annual Meeting of the American Academy of Medicine (Specializing in Medical Sociology) will be held at the Hotel Dennis, Atlantic City, on Saturday, June 1, and Monday, June 3, 1907.

PROVISIONAL PROGRAM.

Friday, May 31st, 8:00 p. m.—Annual meeting of the Council.

Saturday, June 1st, 10:30 a. m.—Executive Session of the Academy.

12:00 m.—Open session of the Academy.

Report of the Committee on "The Teaching of Hygiene in the Public Schools."

Report of the Committee on "The Comparative Value of the First Degree in Our American Colleges" (final report).

PAPERS.

"The Communal Life of Physicians: Its Cultivation and Value." By Dr. Leartus Connor, Detroit.

"The Superiority of the Playground to the School-room." By Dr. Woods Hutchinson, of Arrow Head Springs, California.

"Insurance for Defectives." By Dr. J. A. Spalding, Portland, Me.

(There will be a recess for lunch during this session).

8.00 p. m.—Open session of the Academy.

Annual address before the Academy—Dr. Casey A. Wood, of Chicago, President of the Academy, "A Medical Career and the Intellectual Life."

Monday, June 3, 1907, 10:00 a. m.—Executive session of the Academy.

11:00 a. m.—Open session.

Symposium—The Relation of the Medical Profession to the Housing of the People.

Papers by Drs. Gertrude U. Light, S. A. Knopf, of New York, and others.

Symposium—The Relation of the Profession to Medical Legislation.

Papers by Drs. P. S. Conner, of Cincinnati, Henry W. Cattell, Henry Beates, Jr., of Philadelphia, and others.

There will be a recess for lunch during this session. At the conclusion of the program, there will be an Executive Session, when the report of the Nominating Committee will be received.

7:30 p. m.—Social sessions with the annual banquet, tickets $2.00 each. Fellows are privileged to bring as many guests (including ladies) as they care to secure tickets. This function is under the supervision of the Committee of Arrangements, Dr. W. Blair Stewart, chairman.

Every reputable college-bred physician is eligible for membership in the American Academy of Medicine, and it invites all who are interested in the medical aspect of the social problems of the times to unite in its study of these problems. Blank applications and literature may be obtained from the secretary, 52 North 4th Street, Easton, Pennsylvania.

Tennessee State Medical Association.

At the seventy-fourth annual session of this Association held at Nashville, April 9, 10, and 11, the following officers were elected for the ensuing year: President, Dr. A. B. Cooke, of Nashville; Vice-Presidents, Dr. R. E. Fort, of Nashville, Dr. Chas. P. McNabb, of Knoxville, Dr. R. W. Tate, of Bolivar; Secretary, Dr. Geo. H. Price, of Nashville, re-elected; Treasurer, Dr. W. C. Bilbro, of Murfreesboro, re-elected; Delegate to the American Medical Association, Dr. S. W. Woodyard, Greenville; Alternate Delegate, Dr. C. E. Ristine, Knoxville. Knoxville was selected as the place for holding the next annual session.

At the annual meeting of the Tennessee State Board of Health, April 7, Dr. Heber Jones, Memphis, was re-elected president, and Dr. Thomas E. Abernathy, Chattanooga, vice-president.

More than 200 of the pupils of the schools of Knoxville are reported to be suffering with measles.

The smallpox situation in Weakley county is reported to be unimproved, several new cases having developed near Greenfield.

Memphis and Shelby County (Tennessee) Medical Society.

At the annual meeting of this society held in Memphis, officers were elected as follows: President, Dr. Alexander Erskine, of Memphis; Vice-President, Dr. George Livermore; Secretary, Dr. J. W. Price, re-elected.

Florida State Medical Association.

The thirty-fourth annual meeting of this society will be held at Tampa, April 17, 18, and 19, 1907, under the presidency of Dr. John McDiarmid, of Deland. The Secretary is Dr. J. D. Fernandez, of Jacksonville.

Variability of Galenical Preparations of Digitalis.

Dr. Frankel (Therapie d. Gegenwart, Jan. 1906, p. 9) has shown that several infusions of digitalis ordered at the same time from several drug stores showed the same or the following day a variation in strength of from 100 to 275 per cent. In other words, a tablespoonful of one infusion represented the same as 2¾ tablespoonfuls of another. Among the tinctures the variation in strength was still greater, the difference ranging from 100 to 400 per cent. Attention is also called to the fact that the strength of digitalis leaves varies greatly, according to the season of the year in which they are collected.—From The American Journal of Clinical Medicine, February, 1907.

Cocaine-Kelene, 2 Per Cent. Fries Bros. The Ideal Local Anaesthetic.

A combination of Cocaine with Kelene (pure Chloride of Ethyl.) Preserving all the advantages of Cocaine, but obviating the use of the hypodermic injection. It is non-toxic and cannot deteriorate. Producing a profound and lasting anæsthesia. Applicable on a mucous or cutaneous surface. Can also be used with the thermal cautery.

The Kelene is not used for refrigerating purposes, but simply as the vehicle of the Cocaine, removing the fats from the skin, penetrating the superficial cellular layers thereof and depositing the Cocaine in their interstices.

Although only 2 per cent. Cocaine is used the Kelene enhances its anæsthetizing power so that it is equivalent to a 6 per cent. pure Cocaine solution. The advantages of a permanent 6 per cent. Cocaine solution absolutely free from all dangerous possibilities and capable of being applied instantly and without preparation—at once, makes Cocaine-Kelene the peer of all local anæsthetics. Put up only in 10 gram tubes, 50c. each.

An Efficient Formula for Use in Rhinitis.

During the changeable spring weather it is no unusual matter for the physician to be called upon by his patients to treat their nasal troubles, among which the most common is, beyond all doubt, that catarrhal inflammation of the schneiderian membrane which is currently called rhinitis. It is that form which is not only annoying but very often painful. Among the symptoms which may manifest themselves are pruritus as well as an accompanying anosmia, both of which are exceedingly unpleasant to those so affected. There are many practitioners who begin treating such cases by at once cauterizing the mucosa with stick nitrate of silver, with chromic acid, with the acid nitrate of mercury, or even with the galvano cautery.

These are methods which are but seldom indicated and should but rarely be employed, as the results of their use culminate in scars and a disagreeable condition of the nasal cavity with the constant formation of crusts.

Not long since I had occasion to see and examine some patients affected with such catarrhal rhinitis, and the appearance presented was that of an angry-looking mucous membrane whose secretion was pronounced and inclined to become purulent. In all of these the patients were ordered to take appropriate tonic remedies, and for local application the following was ordered to be applied three or four times daily:

℞ Hydrar. bichlor., gr. ¼
Katharmon, 3 vi
M.-Sig. Use four times daily in nose.

This acted like a charm and in a comparatively short time my patients reported themselves well. It would not be a bad idea to combine white liquid hydrastis with the above; but, above all, see that there is a liberal amount of katharmon, for that is the ingredient that does the work. Those colleagues who will employ the above formula will find it among the most valuable ones they possess.—By Dailey Appleberry, M. D., St. Louis, Mo.

Experimental Pancreatectomy in the Dog.

At the meeting of the Biological Society, November 24, 1906, Sauve showed a dog on which he had practiced fifteen days previously a duodeno-gastro-pancreatectomy. From the results of experiments which this investigator has made on a series of ten dogs, he concludes that it is impossible to remove the entire pancreas of the dog without removing the duodenum also. If the duodenum is not removed it will slough. Gastro-duodeno-pancreatectomy in the dog may be practiced at one sitting, at the same time with the complementary operations for reestablishing the course of the chyme and of the bile. The question of glycosuria which, after pancreatectomy, lasts till death, is still, in spite of current opinion, unsolved. The negative experiments of Pflueger and a case of total pancreatectomy in a man corroborate the reports of the author.—La Presse Medicale.

The Value of Sulphur in the Treatment and Prevention of Malaria.

In certain localities it has long been recognized that sulphur possesses marked value in controlling and preventing malarial attacks. A recent editorial in the Medical Record (March 23, 1907) calls attention to a communication by Diesing (Archiv. fur Schiff—und Tropen—Hygiene, Vol. X, No. 16) who, as a result of considerable personal experience with tropical diseases, has become convinced of the value of sulphur as a prophylactic and curative measure in malarial infections.

Commenting, the Medical Record says: "It is possible to advance a very plausible theoretical explanation of the efficiency of sulphur preparations in malaria. It is well known that pigment constitutes an important factor in the development of the specific parasite, and is absorbed in large quantities from the red blood cells of the patient. The more firmly the hemoglobin is united to the

red cells, however, the less the amount which can be taken up by the malarial organism. It has been found that sulphur, particularly when it is absorbed through the lungs in the form of sulphureted hydrogen or sulphur dioxide, unites with the hemoglobin to form sulphomethemoglobin. The latter is exceedingly stable, and it may be assumed that the resistance which it offers to the action of the oxygen of the air is similarly exerted against the disintegrating properties of the malarial parasites. We may then suppose that the development of generations of malarial organisms is interfered with because the necessary amount of the essential pigment is not at hand. The writer was so impressed with these facts that he employed a sulphur cure in his own case, and found that the parasites were promptly eradicated from the blood picture. Not only must these sulphur treatments be regarded as curative, but they also apparently possess a prophylactic value, for patients treated in this manner have been found to withstand the onslaughts of malaria on their return to the infected districts without a resort to quinine."

The foregoing accounts logically for the pronounced action that has been observed following the administration of Sulpho-Lythin in malarial conditions. This product in the alimentary canal liberates nascent sulphur which is rapidly absorbed into the blood, where it combines with the hemoglobin as above, and serves to inhibit the growth of the malarial parasites. Moreover, Sulpho-Lythin stimulates the hepatic function, another important feature in the correction of malaria. Unlike many other hepatic stimulants Sulpho-Lythin exerts no cathartic action, and simply augments intestinal elimination by increasing functional activity of the liver.

Sulpho-Lythin can be administered over long periods with marked benefit in patients who are infected, or liable to be, with the malarial organism.

Transparence of the Cranial Bones to X-Rays.

C. Luraschi began in 1904 a study of the results to diagnosis and prognosis of the application of the X-ray to the bones of the skull. He finds that it is of value in locating disease of the various sinuses, as the frontal, mastoid, and the antrum, and in detecting tumors of the brain. The rays are of more value in the examination of thin bones, such as those of children. It is possible to distinguish the layers of skin, skull, and dura mater by photography. By radiography one can distinguish the thickness of various parts of bones, and localize foreign bodies, such as projectiles. They are of the greatest use to the rhinologist and the dentist.—Giornale de Elettricita Medica.

Secretion of Milk in the Axilla.

The existence of supernumerary nipples and of axillary mammæ in some women has long been known. A good monograph on the subject was read by Dr. F. H. Champneys twenty years ago at a meeting of the Royal Medical and Chirurgical Society. Dr. Seitz, of Munich, has quite recently reported two cases of secretion of milk from the axilla. In both subjects a painful swelling, quite distinct from the mammary gland, developed on the fourth day of the puerperium. It grew larger for two or three days, until it filled the axilla; on palpation glandular tissue could readily be defined. The mass could be moved over the subjacent tissues, and the integuments were not reddened, although some dilated veins could be seen as in a normal breast during lactation. In one patient there were two or three minute nipples of the size of a pin's head; in the other no trace of a single supernumerary nipple could be detected. By gentle pressure large drops of a white secretion could be pressed out of the pores of the skin in both subjects and out of the nipple in the case where they existed. This process gave great relief, and the secretion proved to be milk. Our readers may remember Cameron's case, where the patient when pregnant became aware of a swelling in the left axilla after physical fatigue caused by carrying several buckets of water during a fire. In the puerperium milk could be pressed from this swelling as in Seitz's cases. There was some discussion when Dr. Seitz read his report before a society. Supernumerary nipples and aberrant mammary glandular tissue are not quite homologous. Dr. Mitchell Bruce's writings on nipples are still well known; they often appear along the line of the normal nipples in the lower mammals, but purely morphological theories will not always account for the appearance of nipples in very abnormal positions. Mammary gland tissue has been detected by Amann in the subcutaneous tissue of the groin in the human subject; in the lower animals this condition is yet more frequent. He associates the inguinal mammary tissue with certain solid tumors of the round ligament occupying the inguinal canal. Dr. Seitz noted how his two cases had been under observation at the same hospital almost at the same time, the first turning attention to the second. It is therefore probable that the condition in question is not so rare as is supposed, cases where pain is absent being overlooked.—British Medical Journal, Jan. 19, 1907.

Treatment of Uremia.

On the theory that uremia is produced by a toxin, LeFevre advises venesection as the most rapid method of aiding elimination and at the same time of lowering the arterial tension, which is frequently very high. Other measures having the same object in view are the use of means to promote free diaphoresis. For this, hot packs may be used, or hot vapor baths, or, perhaps best of all, electric light baths. Pilocarpine used carefully may cause a diminution of the symptoms. To aid elimination by the intestine, colonic irrigation may be used. On account of the vomiting which is frequently present, the saline cathartics may not be retained, but the compound powder of jalap in dosage of ¼ to 1 dram is usually well taken. Elaterium 1-10 to 1-6 grain or elaterin in the same dosage may be given every three or four hours until free catharsis is produced. Many believe the mercurials to be the most beneficial of the cathartics, but care should be taken to see that free catharsis is produced, as otherwise in chronic nephritis salivation from the absorbed mercury is very likely to follow.

To secure free diuresis is sometimes difficult, as in uremia there often seems to be a direct inhibition of the kidney. The members of the caffein series are best tried and they often act better if given in connection with some of the members of the digitalis group.

The uremic convulsions are best controlled by the use of chloroform and chloral. If it is desirable to lower the arterial pressure rapidly, recourse may be had to venesection, or to free catharsis by croton oil. The action of the nitrite series is quite transient. —British Medical Journal.

The Etiology of the Punctiform Hemorrhages in the Mucous Membrane of the Appendix.

Bayer recounts the theoretical and practical considerations which lead him to regard the minute extravasations of blood frequently seen in the mucous membrane of appendices removed during the interval as artefacts produced in the course of the removal of the organ. It is his theory that in tying off the blood supply of the appendix the veins are usually included in the ligature, but the artery often escapes and has to be secured separately later on. In consequence of this there is a tremendous rise in pressure in the capillary network, which results in minute ruptures and hemorrhagic spots. Such lesions may be observed in appendices that have been removed in the most careful manner possible, so that it seems out of the question to consider any mechanical injury responsible for them.—Centralblatt fur Chirurgie.

Clinical Considerations with Reference to Thirty Cases of Nephropexy.

P, Fiori says that surgical interference is positively indicated in cases of movable kidney when this is complicated by albuminuria, uronephrosis, cylindruria, hematuria, or crises of strangulation of the kidney, as well as in grave gastrointestinal complications which manifestly depend on the alterations dependent on the prolapse of the kidney; also in severe nervous disturbances with pain dependent on nephroptosis, which are not relieved by orthopedic measures. It is relatively indicated in those cases which are benefited by orthopedic treatment in which there are not anatomical changes in other organs resulting from the position of the kidney. It is contraindicated in splanchnoptosis unless the condition is aggravated by intrinsic kidney changes of a nephritic type. When associated with genital lesions treatment for these is to be used, except when there is a blood dyscrasia resulting from the general condition. Nephropexy is allowable whenever all other means of treatment have been tried without relief and the symptoms, especially nervous, are increasing. Fortunately the perfection of the clinical indications makes this a rare proceeding of last resort, and its value is enhanced on account of the absolute harmlessness of the operation.—La Riforma Medica.

Treatment of Cirrhosis of the Liver.

M. Gaston Lyon, in writing of the treatment of alcoholic cirrhosis, recommends in the first place an absolute milk regimen in the beginning of the treatment. Later a mixed diet may be allowed—eggs, potato puree, peas, beans, rice, tapioca, etc. In patients with hypopepsia, kefir or other kinds of fermented milk may be added. Saline purgatives in small doses are to be recommended. Calomel is of value and sodium salicylate advisable. Among the recommended formulas are:

℞	Sodi Benzoatis	gr. lxxv
	Strychninæ Sulphatis	gr. ss
	Aquæ Des.	℥x

Two drams daily.

℞	Sodii Benzoatis	gr. v
	Sodii Phosphatis	gr. x

In cachets; two cachets to be taken after meals.

If the ascites is marked, the author prescribes an absolute milk diet, drastic purgatives, scammony associated with squill and digitalis or with theobromine.—Journ. de Med. de Paris.

Why Defective Nasal Respiration Impedes Growth and Development.

P. Watson Williams declares that the pernicious effects of mouth-breathing in children are seen in the constant tendency to infective catarrhs, bronchial colds, and pulmonary complaints, from which children with adenoids and some other causes of nasal obstruction are prone to suffer. "Adenoid growths" are by far the commonest cause of defective nasal respiration in childhood. The absence of normal nasal respiration causes pulmonary troubles and defective development of the chest wall. It may be said that children who persistently fail to expand their lungs are underfed. After abnormal conditions in the nose and throat are removed the physician should advocate the advantage of open air, cold bathing, and appropriate respiratory exercises, in order that these listless, partly asphyxiated children may grow up in the fullness of life.—The Bristol Medico-Chirurgical Journal.

Passed Assistant Surgeon Rupert Blue of the United States Public Health and Marine-Hospital Service has been made chief of the department of sanitation at the Jamestown Exposition.

The State Library Board of Virginia has appointed an art committee, of which Admiral Harrie Webster is chairman, to select a portrait of the famous surgeon and bacteriologist, the late Dr. Walter Reed, major and surgeon, United States Army, who was born at Harrisburg, Va., to be placed in the library.

An anti-mosquito crusade is to be inaugurated in Norfolk during the summer by Health Commissioner Dupuy of that city, who will be assisted in the work by Surgeon Charles P. Wertenbaker and Passed Assistant Surgeon Rupert Blue of the United States Public Health and Marine-Hospital Service.

Acute Heart Failure.—Bolton (London Medical Lancet) says that acute failure of the heart is brought about by any condition interfering with the emptying of its cavities during systole or the filling of its cavities during diastole. Interference with the heart in its capacity as a force pump may be brought about in two ways; either by deficiency in its muscular power or by an increased resistance to the output of blood. Deficient power occurs in acute degeneration of the muscular fibres due to some poison as in diphtheria, typhoid fever, alcoholism, etc. Here the indications are (1) to prevent or diminish the degeneration; (2) to lessen the work of the heart; and (3) to stimulate the heart over short periods when fatal syncope is threatened. The first indication can only be successfully met in the case of diphtheria where we have diphtheria antitoxin at our service. In typhoid fever we have no antitoxin, but by reducing the fever by means of cold baths we prevent heart failure. In pneumonia the nerve centres are probably implicated as well as the heart muscle fibres. Acute heart failure may result from alcoholic poisoning, which is a depressant to the cardiac muscular tissue and leads to fatty degeneration. An increase of the normal resistance to the output of the heart leads to an increase of the work done, and if the heart muscle is diseased, to heart failure. Such an increase of work results from excessively high pressure either in the systemic or pulmonary blood vessels. Acute Bright's disease is an example of a condition producing high arterial pressure, and mitral stenosis, emphysema, and pneumonia of conditions causing obstruction in the pulmonary circulation with consequent failure of the right ventricle. The diastolic filling of the heart may be affected by the diastolic quantum of blood being either too great or too small. Excessive filling of the cardiac cavities may be caused, for instance, by excessive muscular exertion, or by rupture of an aortic valve with regurgitation and acute dilatation of the left ventricle. Any condition raising the intrathoracic blood pressure will diminish the diastolic blood quantum—the best examples are pericardial effusion and hæmorrhage into the pericardium. Finally, a diminution in the total amount of blood, as seen in hæmorrhage and vasomotor paralysis occurring in shock, both produce acute heart failure, owing to the diminished filling of the cavities during diastole, and also through muscular weakness resulting from deficient circulation in the coronary vessels. Shock is due to impairment or breakdown of the vasomotor mechanism. The blood vessels lose their power to accommodate for changes of position, and stimulation of a sensory nerve causes no vasomotor response. The indications for treatment are to restore the vasomotor tone or to increase the volume of blood. Strychnine is useless, and the best results are obtained by repeated injections of adrenalin in conjunction with saline infusions. Bandaging the legs and abdomen so as to increase the amount of blood in the larger vessels is also of service. Rupture of the heart, due to fatty degeneration, acute abscess, etc., always leads to death. Pleural effusion is liable to be accompanied by acute heart failure, due to a rise in the intrathoracic

pressure, and to obstruction of the pulmonary circulation.

Congenital Pyloric Stenosis.—Sutherland, in The London Medical Lancet, deals with the medical treatment of congenital pyloric stenosis by means of dieting and gastric lavage. The aim of such treatment is to remove any source of irritation in the stomach which may maintain pyloric spasm, and to keep the stomach free from any irritating food material, digested or undigested. It is not to be supposed that even in marked cases the pylorus never relaxes. The gravity of the affection lies in the fact that it does not do so enough to allow of the passage of food in sufficient quantity for the nutrition of the infant. The aim of the treatment is to restore the function of relaxation of the pylorus which has been in abeyance, owing to the more powerful action of the constrictor muscular fibres. Although the stomach is dilated and large, yet smatl feedings are called for in order to secure complete digestion. Two or three ounces are sufficient for a meal, and in bad cases one ounce may be advisable. The number of meals must be increased; a month old infant must be fed every two hours day and night, and in bad cases where only one ounce is given, every hour by day. Hunger usually awakens the child with great regularity. The proteids and fats are the parts of the food which are most difficult to digest. If good breast milk is available it is the best food, but the fats should not be more than three per cent. Ordinary modified cow's milk does not work well, as a rule, peptonized cow's milk without added cream being much better. Malt extract, raw meat juice, and grape juice may be given in addition. The stomach should be washed out once a day for a prolonged period, and in bad cases it may be required twice a day. It is a simple process in infants and leads to no discomfort. It should be done when the stomach is ordinarily empty—i. e., two hours after a meal. The washing should show a small amount of soft flocculent material, tending to get less in amount with each washing. If much material is washed out, or undigested curds, it indicates that the food is not properly digested and will maintain the pyloric spasm. The signs of progress are as follows: 1. The vomiting ceases. 2. The bowels act naturally. 3. The stomach peristalsis becomes less marked and gradually passes off. 4. The discomfort, pain, apathy, and whining of the infant are removed. 5. The nutrition is improved. A common complication is diarrhœa, due to the bowels having been out of use for some time. The best treatment is to reduce the amount of food by one half. The use of antispasmodic drugs, such as opium and the bromides, has not proved of the slightest value. In marasmic infants whose tissues are dried up, the use of saline solutions, both subcutaneously and by rectum, has seemed beneficial.

Acute Infection of the Nervous System.—Buzzard (London Medical Lancet) deals with certain acute infective diseases of the nervous system, the leading characteristic of which is acute paralysis. A rapidly developed motor paralysis, involving the whole, or nearly the whole, of the voluntary musculature, is the important and conspicuous feature. Cases answering to this description may be classified under the following titles: (1) Acute anterior poliomyelitis; (2) Landry's paralysis; (3) acute toxic polyneuritis; and (4) acute ascending or diffuse or disseminated myelitis. As regards the acute toxic changes in the cells, the histological appearances are not different from those produced by other influences, and no poison can be said to evoke an anatomical cell change which is different from that evoked by other poisons. There are two definite channels or paths by which bacteria or their toxines may reach the central nervous system and be disseminated within it. These are the blood and the lymph. The blood supply of the central nervous system is so arranged that the richest vascularization is associated with the presence of the most active elements or ganglion cells, whereas the more passive conducting paths are content with a somewhat poorer portion. The gray matter of the cord with its rich capillary network and especially that of the cervical and lumbosacral enlargements, is more exposed to circulating toxines than the white matter. Emboli in the cord are rare, owing to the tortuosity and small calibre of the arteries. When embolic infarcts do occur in the cord they are found both white and gray matter, perhaps with a little preference for the latter, owing to the larger calibre of the anterior spinal artery. He makes the following deductions: 1. That organic and inorganic substances when present in the lymph spaces of nerves tend to be carried centralwards towards the spinal cord and meninges, and especially through the posterior spinal roots. 2. Entry into the spinal cord is made chiefly along the various sæpta within the lymph channels of the radial vessels and along the anterior, but more particularly the posterior roots. 3. That the same substances within the spinal cord and its membrane appear to travel upwards mainly between the meninges and along the central canal. 4. The changes within the cord resulting from its bacterial or toxic in-

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fection through these lymph channels are somewhat patchy and irregular, affecting the gray and white matter alike, with a special incidence on the posterior columns. 5. The morbid histological processes consist of toxic changes in ganglion cells, blood extravasations, small round cell infiltration of the tissues and perivascular sheaths, and parenchymatous degeneration of the nerve strands.

Ligation of the External Carotid Artery in an Infant.—Kuster (Archiv f. Klin. Chir.) reports an interesting case, because it concerns the youngest individual upon whom ligation of the external carotid has ever been performed. The patient was a male infant, six weeks of age, who presented a cavernous angioma of the scalp. The child was born with a bluish tumor in the region of the right parietal bone, and the growth rapidly increased in size. The right side of the head was covered by a tumor almost corresponding to the circumference of the fœtal head at term. The swelling was bluish-red in color, and three very tortuous veins could be seen passing across it. Pressure upon it caused only a slight diminution in the size of the tumor, no increase of tension becoming noticeable at the large fontanelle. The growth had partly displaced the right ear, and had partly extended into the concha. The treatment consisted in ligation of the right external carotid centrally from the origin of the superior thyroid artery. The tumor at once became more flaccid, and consideraly smaller, but it gradually filled again, becoming harder than before. Thereupon percutaneous acupuncture with silk sutures was performed all around the base, only the portion belonging to the concha remaining untreated. The swelling had collapsed to a considerable extent by the end of the operation. The infant readily tolerated the interference and continued to nurse, as if nothing had happened. In the course of the same day clonic convulsions appeared in the left facial nerve and in the two left extremities. These spasms lasted for half an hour, and did not return. No more shrinking or hardening being observed to follow, three styptic threads were pulled through the base of the tumor at the end of a week, giving rise to somewhat severe hæmorrhage, which subsided on pressure. The percutaneous stitches were removed on the next following day. Six days later the crest of the tumor was found to have become gangrenous. The scab was removed after a few days with the Paquelin cautery, and the course from now on was favorable. The wound cleaned itself and began to heal, under occasional rise of temperature, due to tissue necrosis. Unfortunately, the infant in the course of

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the next month developed diarrhœa, vomiting, and emaciation, with the result that the mother refused to remain in the hospital, but started for home. The further course is accordingly a matter of conjecture.

The Pathogenesis of Multiple Abscess in Infancy.—Lewandowsky (Archiv. f. Dermatol. u. Syph.) has examined three cases of multiple abscess occurring in infants. The origin was established as due to exogenous infection with staphylococci, and the entrance of the micro-organisms into the skin was demonstrated as taking place through the excretory ducts of the sweat glands. This renders the etiology identical with that of furunculosis in adults, only that here the point of entrance of the parasites is by way of the hair follicles.

In addition to the abscesses, these three cases presented a superficial pustular affection, in form of suppuration, in and around the sweat-gland ducts. This periporitis plays the same part in the pathogenesis of infantile abscess as does Bockhart's folliculitis-impetigo in the origin of furuncle in adults, since a deep abscess may originate in this manner. However, it is quite possible for numerous pustules to become dessicated without leading to the formation of an abscess; and equally possible for an abscess to be produced, without preliminary pustules, by the action of staphylococci, which have penetrated into the deeper portions of the excretory ducts of the sweat glands, without giving rise to surface changes.

And He Did Not Mention Death.

In the report of a successful operation published in a local medical journal the following statement is made at the very end of the article:

"The operation lasted 55 minutes and at the close the pulse appeared to be better than at the beginning, although still very feeble. About five hours after the operation there was a change and during some exertion of the patient his heart ceased to beat and he could not be resuscitated."

Two Cases of Internal Haemorrhagic Pachymeningitis.—Misch (Jahrbuch fur Kinderheilk.) says that there are two clinical forms of pachymeningitis that may be distinguished in children, the first form being characterized by a progressive increase of the cranial contents under acute symptoms of cerebral pressure, death resulting in one of the attacks. The second form is of slow development, and the symptoms are merely those of hydrocephalus, with increased reflexes, but only faintly suggested spasms or contractures. The differential diagnosis from chronic hydrocephalus is assisted by the ophthalmoscopical findings (retinal hæmorrhage) and by lumbar puncture, the latter having a favorable effect from the palliative point of view. The author reports two cases, illustrative of each of these two forms, respectively. Gelatin injections proved successful in one instance.

Treatment of Lupus Erythematosus by Ignipuncture.—Sabouraud (La Clinique) says that the best treatment is that with the galvanocautery. If this method has not given successful results in the past, it is because the operators did not realize the fact that the disease invades the deeper layers of the skin, and their cauterization was too superficial. The disease generally appears in young adults who are suffering with some form of tuberculosis; who have enlarged glands or cicatrices from scrophulous abscesses, or other tuberculous stigmata. In some, however, the infection may be latent and the point of departure of the disease may not be discoverable. Numerous ointments have been prescribed, but their value is uncertain, since the lesions sometimes disappear spontaneously, leaving a scar. The least objectionable are the caustic applications, of which the following is an example:

℞ Precipitated sulphur,
Salicylic acid,
Pyrogallic acid, } aa 1gramme;
Resorcin,
Ichthyol, ...5 grammes;
Pretolatum, ...30 grammes.
M.

All ointments containing pyrogallic acid will stain the skin, however, and can only be employed upon regions where the skin is ordinarily invisible. The very best treatment is by ignipuncture, with a galvanocautery with a very fine point. This should be applied to the border of the lesion, and at a red heat and not at a white heat. The red heat is necessary, since the cauterization should be deep and bleeding will not be produced as it would with the higher temperature. The periphery of the lesion is thus penetrated by a series of punctures, two or three millimetres in depth, about the size of a pin head and about one millimetre apart. Reaction will last about a week. The cauterization is to be repeated every three weeks. After the third treatment marked improvement is usually observed. Some cases are obstinate and require prolonged treatment, but small and medium sized lesions are cured after five or six seances.

Operation in Infantile Scurvy.—Riese (Deutsche Med. Woch.) says that rickets is usually of interest to physicians rather than surgeons. But the formation of hæmatomata may give rise to serious mistakes in diagnosis. The disease is frequently mistaken for acute articular rheumatism because the subperiosteal swellings are usually situated in the neighborhood of joints. Heubner states that he once saved a limb which a well-known surgeon was about to amputate on the assumption that the swelling was a sarcoma. The disease may also readily be mistaken for acute osteo-myelitis, as is illustrated by the following case:

A boy aged 14 months, was brought to the writer's clinic with the diagnosis of "acute multiple osteo-myelitis," for which a surgeon had advised operation. The temperature was about 104 degrees and the diaphyses of the right femur and right tibia near the knee-joint were greatly swollen, and so painful that the child kept absolutely still, though constantly moaning. At first the writer thought of osteo-myelitis, but a single glance at the mouth, with its bleeding gums, cleared up the diagnosis. Further examination showed that the swellings were entirely confined to the bones and periosteum and did not, as is usual in osteomyelitis, involve the deeper muscles. As the child had not slept for days and refused nourishment the writer made two small incisions—one above and one below the knee—down to the femur and tibia respectively, gave exit to a large amount of liquid blood, and lightly packed the subperiosteal cavities. Extreme tension of the periosteum was evidently the cause of the pain. Immediately after the operation the child appeared comfortable. The pyrexia subsided and on the third day the temperature was normal. The wounds rapidly healed and in three weeks, with a suitable diet, the child was perfectly well.

He says that the disease might have been cured without operation, but is convinced that the latter accelerated recovery. Some authorities state that an operation in infantile scurvy is contra-indicated owing to the liability to secondary hæmorrhage and unsatisfactory healing. Operations not connected with the disease—such as circum-

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cision—should be postponed, but small incisions of a hæmatoma are certainly admissible. Thus Zuppinger successfully incised a large cephalhæmatoma. The pain is undoubtedly largely due to tension of the periosteum and is at once relieved. Pyrexia will probably also subside if, as the writer believes, it is due to absorption of aseptic blood. That this is so, appears to be proved by the facts that no micro-organisms have hitherto been found in infantile scurvy and that in cases in which no large hæmatomata develop, pyrexia is absent. If an operation is performed, a small incision, with subsequent packing, is preferable to puncture with a hollow needle, as with the latter method secondary hæmorrhage into the sac may occur.

Removal of Enlarged Tonsils.—Maclaren (British Medical Journal) suggests that the instruments to be used are a gag, straight vulsellum, blunt dissector like a periosteum elevator, scissors curved on the flat, scalpel, probe-pointed bistoury, and forceps for holding tampons. The operation is commenced by opening the mouth as widely as possible with the gag. The tonsil of the side on which the patient is lying is then caught by the vulsellum. The best grip is got by placing one blade on the nasal and the other on the laryngeal end of the tonsil. The tonsil is drawn inwards and forwards. If it comes out from between the pillars no knife need be used, but if a considerable part of it remains behind the palate a transverse incision is made to expose the gland thoroughly. This is done with a sharp pointed scalpel from within outwards through the mucous membrane. It starts about the middle of the anterior pillar and is from half to three-quarters of an inch long, according to the size of the tonsil, which is made to bulge through it. At this stage, whether the mucous membrane has been cut or not, as much traction is put on the gland as it will bear and the blunt dissector is pushed behind it from above. It is then systematically teased out from its connections. There is this distinct advantage in starting in this way, that it prevents the uvula being injured, as it might be if the gland were taken out from below. Most tonsils peel cleanly out with a smooth and rounded back surface. Much of the completeness and facility of the operation depends on the consistence of the gland. If it is firm the removal is easy, but if it is soft and bears traction badly it may be a matter of difficulty to get it out whole owing to the teeth of the vulsellum tearing through. Scissors or the blunt bistoury are very useful for a tonsil of this latter sort. It is first well loosened by the dissector, and then its final attachments snipped or cut. When one tonsil has been removed it is advisable to wait for a few minutes to allow bleeding to diminish. The second tonsil is then dealt with in a similar way and adenoid

growths and turbinate thickening attended to if necessary.

The Absorption of Remedies Into the Skin.—Sutton (Monatshefte f. praktische Dermatologie) has made a series of observations, of more than general interest, on the absorbability of remedies through the skin.

The problems presented were of unusual difficulty, as it is generally held that not only is the composition of the remedy in question of importance, but the character of the menstruum as well. It has been held for many years by competent pharmacologists that those substances which are capable of volatilization are best capable of being absorbed by the unbroken skin, and of producing general systemic effects, but it is by no means established what conditions in the menstruum are best adapted to further the result desired.

Milk as a Haemostatic.—Lolt (Therapeut. Monatsh.) says that he succeeded, in a number of cases, in controlling severe hæmorrhages (such as uterine, gastric, and pulmonary) by means of milk enemata; one to two pints, mixed with a little salt. A larger quantity was employed in patients in imminent danger of death from hæmorrhage. The injection was invariably administered with the "clysopump." The effect is explained by the author as due to the fact that the milk contains a series of substances otherwise employed for hæmostatic purposes, such as iron, phosphoric, sulphuric, citric acids; also lime salts, as well as disintegration products of the nuclei of leucocytes, which are suspended in the milk; possibly, extractives from the mamma having a hæmostatic action.

The chief point in the employment of milk as a hæmostatic agent is its administration by the rectum, since the hæmostatic effect is inhibited by the gastric digestion, when milk is given by the mouth.

Somatic and Psychic Electrotraumata.

Anacleto Romano calls our attention to the manifestations of epilepsy following injuries by currents of low tension and from his studies of the condition concludes that inter-mittent currents of low tension penetrate the brain and produce a suspension of the functions of the hemisphere; such currents traversing the brain produce epilepsy with the three phases of tonic and clonic convulsions followed by coma. The development of this condition is modified by medication introduced into the circulation as well as by the functional and chemical conditions of the brain. Apoplectiform attacks may also be produced by electric currents interrupted and increasing in intensity. They directly affect the circulation of the brain, or indirectly they paralyze nerves or segments of nerves, such as the vague. These electrotraumata produce psychical symptoms that are very marked; among others a true form of demential paralytica, preceded by disturbances of the mental faculties. All the neuroses and psychoses may reselt from electrotrauma. They either predispose to neurotic and psychopathic conditions, or directly determine them. In Vienna has been established a clinic for the treatment of conditions due to electrical atmosphere and results of the industrial trades in which it is used. The remedies to be used, after an accident by electricity, are such as lower the blood pressure, stimulate the respiration, and quiet the cerebrum. Preventive measures in the line of perfect insulation should be carried out by all companies installing electrical apparatus.—Annali di Elettricita Medica e Terapia Fisica.

Temporomaxillary Actinomyoosis Cured by Iodo-Gelatine.

Francesco Putzu published the history of a case of actinomycosis of the temporomaxillary articulation and side of the jaw, occurring in a woman of twenty-eight years of age. The swelling was of woody hardness, and examination of the pus from softened areas showed the presence of actinomyces and the absence of any other pus germs. They were in abundance in all pus examined during the second year of the disease. Each granule consisted of a central mass of filaments and a peripheral mass of rays. Cultures in animals showed foci of actinomycosis. The neighboring glands showed a characteristic hyperplasi with foci of detritus similar to cheesy matter. The patient was treated with iodide of potassium internally and with injections of the iodo-gelatine of Sclavo. The result was a complete disappearance of the growth and of all symptoms except an ankylosis of the jaw due to a large amount of cicatricial tissue. This was removed by operation and the patient recovered the use of the articulation.—Rivista Critica di Clinica Medica.

The Lymphatic Glands in Infectious Diseases.—Vipond (British Med. Journ.) discusses the early diagnosis of infectious diseases by the recognition of the general involvement of the lymphatic glandular system, and records the results of a laborious clinical research. His conclusions are:

(1) The nodes are enlarged in infectious diseases.

(2) They are enlarged some days before the development of the disease. He has found them enlarged seven days before the

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rash of measles appeared.

(3) The enlargement of the nodes is more marked in certain infectious diseases than in others.

(4) They resolve more quickly in diphtheria under antitoxin than they do in measles and erysipelas. Vipond lays special emphasis on the following: When called to see a child suffering from an infectious disease it is one's duty to examine the other children in the family who have been exposed and if the nodes are found enlarged they should be immediately isolated.

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Politics and Bossism in Medical Organization.

The organization of our medical societies and associations furnishes a proper medium whereupon to implant and nourish a peculiar form of political endeavor, peculiar from politics in general, in that the medical profession has certain distinct characteristics; it is bound together by certain tacit understandings, as to etiquette and ethics. On the surface, medical men are supposed to treat each other with consideration, hide each other's shortcomings, and "guard well that erring member, the tongue." In consequence, medical politics is surrounded and encumbered by many hindrances to free and open speech, but grows upon a sub-soil of the most Machiavelian intrigue.

Let us look momentarily at this court of ambition, the medical society. Since the inception of medical societies the importance of holding the presidency has in all communities been ground for a contention smacking of local ward politics, under the surface, but presenting a serene and smooth sea of smug courtesy above. These conditions, which go back, no matter how long, have been lately reinforced and accentuated by the association of our local bodies with each other, and the establishment of a higher Hall of Fame, a national association.

The presidency of the national body is the focus towards which all medico-political rays converge. The system of this convergence is quite elaborate and establishes a veritable hierarchy. The small county society and the city society are the two first steps. Next to them comes the state association, then an association covering a section of the county, and lastly the great national organization, which sends its dendrites through the entire system. Surely, the national association holds out in its officership a place where the most swollen egotism may be satisfied and the most serious form of hypertrophied ambition soothed.

It is not our purpose to criticise medical organization. We are heartily in favor of the same. What we do wish to develop, however, is the danger that arises in such a perfectly organized machine of bossism and the methods of politics common to a republican form of government. We feel instinctly that the tendency is toward the development of medical politicians, men who have for their aim the holding of office. This, when not backed up by worth to the profession in a medical way, is a dangerous tendency. We believe that the office should seek the man in our medical associations, much more than in any other form of organization. Our first aim should be the advancement of medicine, not the accumulation of titles. From another point of view, these political tendencies have a distinctly bad influence on any medical community. Jealousies arise; enmities are created, with and without cause; and the scene, figuratively speaking, becomes one of blood and lust, rather than one of brotherhood.

It is not possible, of course, to have our elections unanimous, but we feel that only such men should hold office in medical organizations as have demonstrated beyond question their worth as medical men, not as politicians. Let this condition hold in the first steps of our national association, and the future of our organizations, as a whole, for the advancement of medicine, will be assured.—*Interstate Medical Journal*, December, 1906.

Dr. Stillman Hunt, D. P. W.

The presidency of the American Medical Association may in the past have been an honor or it may not have been. When a disinterested observer has watched the play of a seeker after the office—the long "still hunt," the "pipelaying," and the cunning strategy employed (the game is still going on)—he is inclined to be ironical as regards the genuineness of the honor. But beyond question both the seekers and the givers hold it to be veritably honorable, and so, of course, it should be. As in every other public position it all depends upon the motive of the man who covets it or has it put upon him. If egotism, self-seeking, the desire for success, is at the bottom of the matter there is disappointment for the profession, which hastens to cover by forgetfulness the bitter of its mistake. And then, perhaps, repeat the blunder in a year or two! The inevitable result is that the official tends to become a sort of figure-head; the possessor occupies the attention for a brief day or two, the kite-tail to the name useful therafter only in the captions of journal articles, and the title pages of text-books. But in after years when one asks as to the real result of labors of some of the incumbents he may find that the hour of kingship was utilized in little more than a march, not always dignified in itself, across the stage, while professional organization, progress and science were not advanced a step. It is fortunate that this has not always been the sesult.—*American Medicine.*

*D. P. W.—Department of Professional "Works" —Ed., A. M. J.

Carstens Condemns Forced Organization.

In his presidential address before the Mississippi Valley Medical Association at its thirty-third annual meeting held at Hot

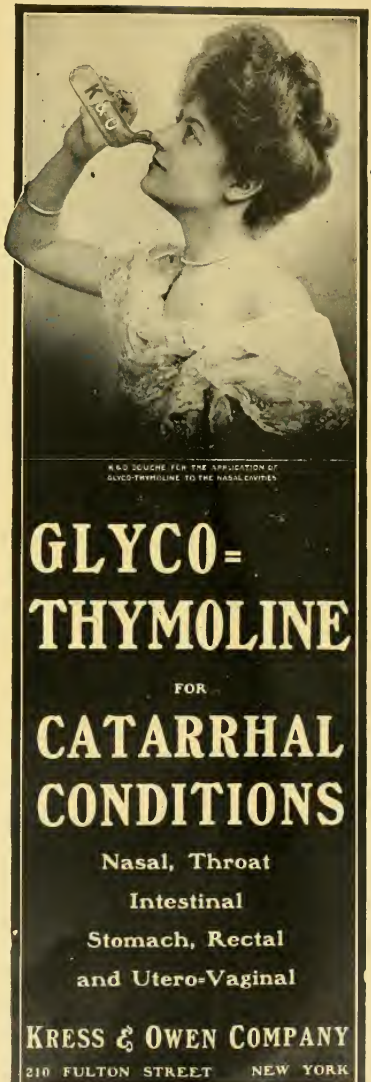
Springs, Ark., November 6-8, 1906, Dr J. Henry Carstens said (*Medical Fortnightly*) that as the country was large it was desirable to have larger societies in different parts of the country, but that the American Medical Association should not establish a rule and force certain states to join together in the form of a branch; it should be left to the members to organize any kind of way they desired. If a certain branch in the East or West or the South formed an organization. all right. If they ran over the border into some other branch, what was the difference? We could have a Mississippi Valley society, a Southern Society, or a New England Society, and a Rocky Mountain Society, and still any member of the American Medical Association should have a right to belong to any or all of them. He was sure that at the next meeting of the American Medical Association* Atlantic City, June, 1907. this point would be settled.

Penn. Medical Society Seeks Light On A. M. A. Finances.

This report of the Board of Trustees (A. M. A., Boston, June, 1906), was widely discussed and somewhat criticised. We do not believe that anything but words of commendation are *Proper;* yet, as was brought out at the meeting, we think it would be wise for the Trustees to furnish to the House of Delegates, at least for private persual, a somewhat more detailed report, and not group under one item of expense so vast a sum as $78,874.79.—*The Pennsylvania Medical Journal* (official organ of the Pennsylvania Medical Society.)

Anemia and Its Relation to Catarrhal Inflammation.

No disease is more common than chronic inflammation of the mucous membranes. Doubtless many causes contribute to the prevalence of this malady which spares neither the young nor the old, the rich nor the low. Prominent in its etiology, however, are sudden climatic changes, the breathing of bad or dust laden air, bad hygiene in personal habits, and bad sanitary surroundings. These factors all singly or collectively tend to lower the vitality of the whole human organism, and as a consequence the cells throughout the body perform their various functions imperfectly, or not at all. The quality of the blood becomes very much lowered, with the result that tissues that have important work to perform, do not receive sufficient nourishment and so falter from actual incapacity. The red blood cells are reduced in numbers and the hemoglobin is likewise diminished. Because



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of the blood poverty the digestive process is arrested, nutritive material is neither digested nor absorbed, and a general state of inanition ensues. It is not surprising under these circumstances, therefore, that chronic inflammation of the mucous membrances is produced. These highly organized structures with very important duties to perform naturally suffer from insufficient nutritional support, and the phenomena of catarrh follow as a logical result. Pervesion and degeneration of the cells in turn takes place, and more or less permanent changes are produced in the identity and function of the tissues.

Appropriate treatment should consist primarily in correcting or eliminating all contributing factors of a bad hygienic or insanitary character. The individual should be placed under the most favorable conditions possible and every effort made to readjust the personal regime. Local conditions of the nose, throat, the vagina, or any other part, should be made as nearly normal as possibly by suitable local applications or necessary operative procedures. Then attention should be directed immediately to improving the quality of the blood and thus increase the general vitality, For this purpose vigorous tonics and hematics are desirable and Pepto-Mangan (Gude) will be found especially useful. Through the agency of this eligible preparation, the blood is rapidly improved, the organs and tissures become properly nourished and accordingly resume their different functions. Digestion and assimilation are stimulated and restored to normal activity, and the various cells and organs start up just as would a factory after a period of idleness. In fact Pepto-Mangan (Gude) supplies the necessary elements that are needed to establish the harmonious working of the whole organism. When this result is achieved, the catarrhal condition is decreased to a minimum and distressing symptoms are banished, a consummation that is highly gratifying to every afflicted patient; and every earnest practitioner.

Tonsillitis.

Inflammation in any form attacking the tonsillar region gives rise to symptoms of most distressing character and at the same time provides a most favorable soil for the entry into the system of other infections It is well to remember that at first this disease is only a local disturbance affecting the capillary system and glandular structure and if promptly and efficiently treated will remain local. The constitutional symp-

toms such as fever, headache, etc., only develop when there is considerable infection taken up.

In the treatment the first indication is to increase local capillary circulation. A local remedy must fill two requirements, i. e., a detergent antiseptic and a degree of permanency in effect. Many of the remedies which have been advocated for the varied forms of tonsillitis are antiseptic but they are not sufficiently exosmotic in their action to increase the circulation or else their effect is too transient. Glyco-Thymoline frequently applied in a 50 per cent. strength with a hand atomizer produces a rapid depletion of the congested area through its well defined exosmotic property, reestablishing normal passage of fluids through the tissue, promptly relieving the dry condition of membrane and giving an immediately and lasting anodyne effect. As a gargle a 25 per cent. solution hot may be effectively used providing the process does not cause undue pain. The external application of cloths dipped in hot water and Glyco-Thymoline in 25 per cent. solution greatly increases the venous circulation.

An Annual Visitor.

We have just passed through our annual epidemic of la grippe, which as usual, claimed its victims among all classes and conditions, mainly, however, among the classes where the resisting power was below par, or among sufferers from some chronic ailment. While the sequelae and complications of this disease may assume almost any phase of acute inflammatory character, its primary effect is upon the nervous system. Therefore, we have no hesitancy in saying, no matter what the local inflammation may require as a medicine, by all means give antikamnia tablets as a nerve sedative and to relieve the muscular pains always present. We have seen a violent cough of bronchitis treated upon the general plan, with the cough as distressing at the end of twenty-four hours as at the beginning, promptly yield to six antikamnia tablets during an interval of six hours. La Grippe usually requires a double treatment, one directed to the influenza, and the other devoted to the complications present, be they of the respiratory organs or digestive track. In all cases antikamnia tablets will be found to perform a prominent and successful part and purpose. —Medical Reprints.

Treatment of Fractures.—Cheyne in the British Medical Journal says in considering the treatment of recent fractures, various points must be borne in mind: the reduction of the fracture, the retention of the fragments in position and their proper fixation, and the avoidance of secondary troubles, such as deformity and inability to use the limb completely. Of these various points the proper reduction of the fracture is of paramount importance. By reducing is meant an attempt to interlock the broken ends. The ends of the bones are never broken off smoothly; there are always projecting portions on both surfaces, and if only these can be fitted into each other, the ends will frequently retain their position to a considerable and sufficient extent without much trouble or pressure. Where a fracture extends into a joint, or is in the immediate vicinity of a joint, no pains should be spared to get accurate replacement of the fragments; otherwise there will be a great deal of restriction of movement in the joint, and often complete stiffness, owing to the altered lines of the joint-surfaces.

The chief obstacles to reduction are muscular contraction and the interposition of materials, such as fascia, periosteum, etc., between the ends of the bones. Other obstacles are rotation of the fragments, comminution of the broken ends, the small size of one of the fragments, etc. The chief difficulty in retaining fragments in position are incomplete reduction of the broken ends, the weight of the lower part of the limb, and where one fragment is short and has a strong muscle attached to it.

In the great majority of fractures reduction should be effected under an anæsthetic, as complete relaxation of the muscles is most important. Should it be found impossible to get the bones into accurate apposition, the question of apposition should be considered. But it should always be borne in mind that operations of this kind are of a severe and serious nature, especially in the case of deep-seated or double bones. Much depends upon the manner of fixation employed. Wherever the parts are large enough to permit of it, the writer uses an aluminum plate, embracing the two fragments and fastened on with tacks and small screws.

While it is evident that the sooner movements and massage can be begun, the quicker will the function of the limb be restored, yet the author believes that the fractured ends ought to be left quite still for eight or ten days after the injury, except in the case of fractures of the forearm, where the fingers can be left out and moved from the first.

Heart in Graves's Disease.—Dernini, in the British Medical Journal, concludes that the most striking feature about the heart in this disease is its extreme sensibility to the

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effects of muscular fatigue. On the least extra exertion it gives way, and this is shown most markedly in the increase in the transverse clinical diameter of the heart. The increase may only be slight and very transient, but never fails. The right side of the heart is the more readily affected, the auricle being involved in the more severe cases. The degree to which this dilatation proceeds is in direct relation to the general tone of the muscular system; the weaker this is, the more likely the heart will be affected. This ready response of the heart-muscle to signs of fatigue, characteristic of Graves's disease, may be used in differential diagnosis in abortive or masked cases. Accessional dilatation of the ascending aorta and tumultuous pulsation of the peripheral arteries are also useful aids in diagnosis as pointing to Graves's disease. The heart, after this temporary dilatation, almost always returns to its original dimensions. Functional murmurs may appear and last for a time as the result of this cardiac dilatation.

Nervous System in Influenza.—Harris, in The London Practitioner, says that next to diphtheria there is no acute disease which affects the nervous system so severely as does influenza, and there is no other disease which has such varied nervous sequelæ. This very fact may lead to error by attributing too many nervous phenomena to an invasion of Pfeiffer's bacillus. At the onset of the disease the chief symptoms are those of the nervous system, pain, neuralgia, cramps, and headache. A very severe frontal headache, accompanied by pain in the back of the neck and at the back of the eyeballs, is almost pathognomonic of influenza. Sudden syncopal attacks are apt to occur at the outset; tachycardia and dilatation may develop. Various ocular complications have been recorded—optic neuritis, retinitis, and even meningitis. Paralysis of one or more of the eye-muscles sometimes occurs, and occasionally complete tem-

porary blindness. Myelitis, herpes zoster, multiple neuritis, and numerous other complications are alluded to.

Opsonins and Treatment by Bacterial Vaccines.—Bunch (The London Medical Lancet) says that while the exact nature of the opsonic bodies is not known, they undoubtedly act on bacteria in such a way as to enable them to be taken up by the phagocytes. An increase of the opsonic content of the blood-serum can be brought about by the injection into the organism of vaccines. Of these, the best known is the "old" tuberculin of Koch. The inoculation of a vaccine is always followed by the following train of events: A period of intoxication supervenes upon the inoculation, which is characterized by a decline in the anti-bacterial power of the blood; this "negative phase" is accentuated and prolonged according to the size of the dose of vaccine. It may be so marked as to cause a temperature reaction and constitutional symptoms. Upon the "negative phase" there follows a "positive phase," characterized by an increase in the anti-bacterial power of the blood and corresponding to a period of increased resistance. After the negative and positive phases the blood may be maintained for a variable period at a somewhat higher level of anti-bacterial power. If the right initial dose of vaccine is used, the negative phase will not be too marked; it will be less with succeeding inoculations; and will be followed by a well-marked positive phase. If the dose is too large, the positive phase may be late or even entirely absent.

Anomalous Cases of Pernicious Anaemia.—Gulland (British Medical Journal) summarizes the histories of a group of cases in which prominent features were variously amaurosis, symptoms suggestive of peripheral neuritis, aphasia, gastrointestinal disturbances, kidney disease masking the anæmia, acute Bright's, intermittent pyæmia, long-continued symptoms with acute terminal attack, etc. He believes the disease is more common than fifteen or twenty years ago. It is not essentially a blood disease at all, but rather a toxæmia of largely unknown, possibly very various, origin, which affects the blood, the blood-forming organs, the nervous system, and the gastro-intestinal tract, in proportions which vary infinitely in different cases. The old idea of pernicious anæmia, that it is a condition of rapidly-advancing anæmia leading within a short time to a fatal issue, must be given up, for cases are on record of very prolonged duration, and there are many in which almost from the first to the last the anæmia is quite in the background, and the prominent symptoms are those due to the affection of one or other of the other systems mentioned.

Treatment is of value only in cases in which a diagnosis is made early. He does not believe that the streptococcus or any other organism is responsible for the malady. The blood of pernicious anæmia represents in some ways a throw-back to the blood of early fœtal life, and it seems possible that in the people who become affected there may be inherent weakness of the resisting power and of the blood-forming organs which allows the bacterial processes which go on in every intestine to get out of hand, so that quite ordinary organisms acquire an unusual virulence, and set up the hæmolytic and other toxic processes which one sees in pernicious anæmias. He has been strengthened in this feeling by the fact that within the last few months he has come across three cases of people in middle life whose fathers had died of pernicious anæmia, in one case ten, in another twelve, and in the third eight years before. This seems to point to an inherited weakness of the bone-marrow.

He lays special stress on diet in the treatmeant of pernicious anæmia. This should be arranged with care to suit each case, but the broad principles are that as long as the blood-count is low it should consist entirely of milk and farinaceous food; no meat of any kind should be permitted. Of course, this change of diet partly meets the second indication, the diminution of bacterial processes in the intestine. It is not uncommon to find that patients, when they are first seen, have large quantities of indican and similar substances in the urine, and that after a week or two on a farinaceous diet these practically disappear. In some cases it may be necessary to supplement this by giving intestinal disinfectants, of which, in the author's experience, calomel and salol are the most efficient; and in still others it may be necessary to wash out the bowel daily with large enemata of normal saline solution. Theoretically, the stomach might be washed out as well, but patients who are so seriously ill as to require this are seldom in a condition to stand the strain which it involves. The secretion of hydrochloric acid in the stomach is practically always deficient and usually absent in this disease, and he had sometimes found marked improvement from giving hydrochloric acid and pepsin in several doses after meals.

Acute Infantile Intussusception.—Dunbar (Scottish Medical and Surgical Journal) says that intussusception is the cause of one-third of all cases of intestinal obstruction at all ages. In children three-quarters

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of the cases are due to this cause. It is much more common in males than in females; in the proportion of three to one.

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the most frequent. A rare form is that in which the appendix is turned completely inside out and projects into the lumen of the cecum. A less uncommon variety, that of the intussusception of the small intestine into Meckel's diverticulum.

The various pathologic changes take place in rapid succession.

Causes of the frequency of this disease in infancy, while still obscure, are attributed to the state of unstable, nervous equilibrium of the intestinal tract. The exciting cause is often apparently an acute gastrointestinal disturbance, but more frequently not to be determined. The frequency of the ileocecal variety is probably due to the projection of the ileocecal valve and terminal portion of the ileum into the colon, and the mobility of the cecum and colon, which permits a tendency to invagination from change of relative position.

The symptoms derived from a number of detailed cases are remarkably uniform and characteristic. The onset is usually sudden, but in almost one-half the cases there was a history of previous digestive disturbance. The first symptom is severe abdominal pain, cramp-like in character, which is believed to be synchronous with the commencement of invagination, as is also the indefinite history of indigestion, vomiting and restlessness. The pain continues to come on at intervals of varying length, until the patient becomes moribund; during the painless intervals the patient is fairly comfortable.

The second important symptom is vomiting, which is violent in character and frequently repeated; first, of the contents of the stomach, later of only a little yellowish fluid. In only one case of the series was the vomiting stercoraceous in character. The third and most characteristic symptom is the passage of blood and blood-stained mucus from the bowel. In only 3 of 59 cases was this absent. It is often accompanied by a great deal of straining. This symptom, as a rule, does not appear until four or five hours from the beginning of the attack, but the time of its occurrence is variable, and it may be the first observed symptom.

At first there is usually some diarrhea, to be followed later by complete constipation in every case. In one case of typical ileocecal invagination a normal stool was passed one-half hour before operation. Finally, the characteristic collapse takes place very rapidly.

Physical signs: Varying state of collapse. Respiration somewhat increased. Pulse rapid. Temperature in early stages normal or subnormal, later rising 2 or 3 degrees, coincident with the inflammatory changes and gangrene. The abdomen is generally but moderately distended; asymmetry may be seen. The sausage-shaped tumor may usually be made out without difficulty by careful palpation.

In 57 cases in which the location of the tumor was stated, in 5 it was in the upper abdomen, in 24 on the right side, and in 28 on the left. Of the 21 ileocecal cases that recovered, in 11 it was on the right side, or upper part of the abdomen, and in 10 on the left. Of the 24 that died, in 5 it was on the right or upper part, in 18 on the left, and in one case the position was not stated. The situation of the tumor, indicating the length that it has traveled, the "*signe de Dance*" (emptiness of the right iliac fossa) is not to be relied on, but was present in 3 out of 7 of the cases examined by the writer. Of 55 cases, in which a rectal examination was made, the tumor was palpable in 29, and was felt as a simple nodular projection with no dimple corresponding to the lumen. The tumor may project from the bowel.

Diagnosis: Sudden, severe abdominal pains, followed by vomiting, especially when occurring in a healthy child of six months old, or thereabouts, should make one think of the possibility of this condition. If passage of blood be associated, the diagnosis is almost certain. The presence of a tumor, made out by abdominal palpations with an anesthetic if necessary, or by the rectum, furnishes absolute confirmation.

Conditions from which intussusception must be differentiated are ileocolitis, or any form of diarrhea, especially when accompanied by passage of blood, rectal polypus, congenital obliteration of the bile ducts, or organic disease of the liver and purpura hemorrhagica.

Prognosis: If unrelieved death takes place in from one to three days. Recovery may rarely occur through spontaneous reduction, and still more rarely by sloughing and passage of the intussusceptum.

Treatment: Reduction by injection of air or water, preferably the latter, may be tried only in the early stages, or if for any reason laparotomy may not be performed, but should be immediately abandoned if not successful, and in any event performed with much caution, as the danger of rupture is by no means remote. Laparotomy, as soon as the diagnosis has been made, with reduction by careful manipulation, gives the patient the best chance of permanent recovery. Recurrence may be guarded against at the time of operation by fixation of the colon or shortening the mesentery. Operations for the relief of an irreducible intussusception have been thus far hopeless.

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Hamamelis Virginica—Its Use and Abuse.

In a paper on "The Medicinal Treatment of Hemorrhoids without Surgical Intervention" (*Therapeutic Medicine*, January, 1907), Dr. M. R. Dinkelspiel, Philadelphia, says that he regards non-operative treatment indicated in incipient forms, when the hemorrhoids are secondary to other disease, as hepatic cirrhosis, tumors, etc., and when the hemorrhoids occur in aged individuals who cannot safely undergo operation. Constipation is a most potent cause; and it must be cured, the defecations being so arranged that they occur at night, as the subsequent rest relieves engorgement. Locally, cleanliness is of primary importance; the parts should be washed with witchhazel solution of which 1 or 2 ozs. may also be injected into the rectum.

As bearing on this subject of witch hazel, "there is," according to *The Trained Nurse and Hospital Review*, "nothing pertaining to materia medica which has received so much study and widespread research among medical men as have those materials whose nature and properties are indicative of curative value in the relief of pain. In this extensive research hamamelis virginica has been proven, through extended practical demonstration, to contain anodyne (pain releving and healing virtues) to an uncommon degree. It embodies, first, anodyne action for pain relief; second, styptic action, for controlling hemorrhages —bleeding; third, astringent action; for healing; fourth, antiseptic action, for preventive—anti-poisonous tendencies.

"But, in order that these desirable qualities may be obtained, it is vitally essential that a preparation of hamamelis should be of a guaranteed standard of purity, quality and strength. This is only possible through expert preparation and upon a large scale, and in Pond's Extract the ideal relief, not only for pain, but for soreness, lameness, hemorrhages, inflammation, etc., has been obtained. For sixty years it has been relieving and stopping pain of all kinds. Though imitated, substituted in every conceivable form, it stands out to-day all the more efficient by such comparison. The belief that the ordinary substitutes of the market are just as good as Pond's Extract is fraudulent on its face."

The very cheapness of the substitute is evidence enough of its sophisticated character, as is amply demonstrated by the following editorial abstract from the *Bulletin of Pharmacy:* "It is reported that the majority of several hundred samples collected of distilled extracts of witchhazel sold in Chicago drug stores have been found to contain

Wood Alcohol, instead of grain alcohol, *and even formaldhyde* . . . The spirit of intolerance against the sale of preparations containing wood alcohol, *whether for internal or external use*, is constantly growing, and it may be expected that the practice will meet with more and more severe punishment in the future."

The poison perils of the common commercial and *unidentified* witchhazels of the market, adulterated with Wood Alcohol and Formaldehyde, may be entirely avoided by prescribing and dispensing only Pond's Extract of Hamamelis Virginica. Pond's Extract has been the standard of purity, quality and strength among distillates of hamamelis for more than half-a-century and its many medicinal and recognized virtues have doubtless contributed materially to secure recognition for Aqua Hamamelidis by the Committee of Revision of the U. S. Pharmacopœia, 1900, and its inclusion in the latter as "official."

The Best Hypnotic.

A patient who would sleep but cannot sleep should be made to sleep. In the choice of a hypnotic the physician should always seek that one which not alone is most effective but which presents the fewest disadvantages in the way of after effects. For years Bromidia has been the standard hypnotic prepared at the command of the profession. Through all the time that it has been known it has never failed in composition or efficiency. Its constituents have been of the purest, and in fact, Bromidia has been the standard by which similar preparations have been measured. That the medical profession have appreciated its worth and thorough reliability is well apparent, from the place it holds in the regard of every physician who appreciates stability and honesty.—The International Journal of Surgery.

The Pharmacopoeia, —As Seen by one General Practitioner.

Why is not the U. S. pharmacopoeia more popular with the physicians? Why do not a larger proportion of prescriptions call for pharmacopoeial drugs? Is there any good reason on the part of the physician why he should use the pharmacopoeia more? Is there any good reason for its lack of popularity?

When a student graduates into a full fledged physician he has passed an examination in Materia Medica, and that Materia Medica is composed principally if not entirely of pharmacopoeial drugs.

The first few years in practice he is gaining experience, has time to study his cases pretty thoroughly, and is prejudiced in favor of the pharmacopoeia. He gets familiar with certain drugs which in this combination or that appear to influence certain conditions for good. Certain others which he has been taught to depend upon have failed him and a proprietary has seemed to turn the trick.

At the end of eight or ten yéars he has quite a pharmacopoeia of his own, limited to be sure, but composed of drugs which he feels that he can depend upon, some official and some non official.

One of these is perhaps Tr. Digitalis or Tr. Belladonna or Tr. Aconite. He has gotten way beyond the text book in these drugs and his dosage does not depend on a memorized strength but on the effect which he has been accustomed to get from a certain quantity.

Just now a revision of the pharmacopoeia becomes authoritative and he wonders why his prescriptions containing these tinctures do not have the effect he has learned to expect. He now learns that the strength of these tinctures has been materially decreased. He makes a mental note of this and tries to arranged his prescriptions accordingly but he has come to think of Tr. Digitalis as an entity with certain effects and not as a certain percentage of a crude drug which in its crude form has never entered into his experience and therefore he finds himself more or less at sea when writing prescriptions containing that tincture. What wonder then if he falls back on a proprietary which he has until now used but infrequently but which he feels it is to the interest of the manufacturer to keep at a standard strength and which therefore he can depend upon, But for the next changes in the pharmacopoeia we are not to wait ten years- The druggist are clamoring for an annual revision to be issued in a supplement. But, you ask, what have the druggist to do with it? Is not the pharmacopoeia in the hands of the physicians?

For answer let us look at the composition of the Revision committee. Fifteen druggist and eleven physicians and of these physicians more of them theorists than practical men.

Am I trying to block the wheels of progress? Not at all. A revision every year if you choose but make it in the interest of the physician. Let the changes be the adding of new preparations, and the cutting out of obsolete ones, but hands off the old standby's,

But why should the physician make a fetich of the pharmacopoeia. We can see why the druggist should be interested and why he should wish that prescriptians be limited to a certain list of drugs but since

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when have the physicians been in leading strings to be dictated to by any body of men whether they are called a committee on revision or a committee on New and Non-official preparations.

The physician's business is to carry on the battle against disease and to use the means whether official or not which will give the victory to his patient. It is the business of the pharmacist to see that the drugs furnished on prescriptions are what the physician expected his patient to receive; and it is not his province to try to tie the physician down to a certain set of drugs. The individual physician has to shoulder the responsibility in each case and his hands should be perfectly free.—J. Leverett, A. B., M. D., Yonkers, N. Y.

The Mineral Waters of the Buffalo Lithia Springs have been widely and favorably known for many years. Their efficacy in the treatment and cure of disease has been strikingly attested by their extended use and increasing popularity with each succeeding year, for it has been demonstrated beyond question that their therapeutic action is definite and constant, and that, for special indications they may be relied upon with a great degree of certainty.

Dr. John V. Shoemaker says that Buffalo Lithia Water is doubly efficient in rheumatism and gout. It dissolves uric acid and phosphatic sediments as well as other products difficult of elimination, while at the same time it exerts a moderately stimulant effect upon the renal cells, and thereby facilitates the swift removal of insoluble materials from the body. Without such action insoluble substances will precisitate in the kidneys and bladder.

The intense suffering produced by stone, together with consecutive pyelitis and cystitis, are avoided by prompt elimination.

Clinical Popularity.

LLEWELLYN ELIOT, A. M., M. D., Surgeon to Providence Hospital and Eastern Dispensary. and President of the Medical Association of the District of Columbia, etc., Washington, D. C., in an article read before the Section on Obstetrics, said In irrigating these cases, we may use the solution of bichloride of mercury, carbolic acid or any other medication which individual preference may suggest; for my part, I employ a solution of TYREE'S ANTISEPTIC POWDER, which is non poisonous." What can better attest its high reputation than the fact that recognition is given by so high an authority. A trial package will be mailed ed free of charge to physicians if they will

send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

The Harveian Oration.

The Harveian Oration for the year 1906 will be memorable as a display of ripe erudition and wise insight into the evolution of the human intellect. It was delivered by Dr. William Osler, who brought to the task a mental equipment peculiarly fitted for its successful treatment. Year after year the annual panegyric upon Harvey and his great discovery has taxed the ingenuity of the keenest minds in the medical profession, and the time has long gone by when it was possible to say anything new upon the man himself. His great work, however, remains a monumental work for all ages- Inasmuch as the discovery of the circulation of the blood laid the foundation of all modern pathology, the Harveian lecturer, by a judicious application of that truism, is enabled to review the whole field of medical progress. One of the keynotes struck by the lecturer of 1906 is tersely expressed in the remark of Locke, himself a physician, to the effect that "Truth scarce ever yet carried it by vote anywhere at its first appearance." The frame of mind that three hundred years ago for a time overwhelmed Harvey with a flood of neglect, ridicule, and contemp has hitherto been the rule in the history of scientific achievement. In the present generation two striking instances may be cited in the widespread opposition which met Koch's discovery of the bacillus of tuberculosis and Lister's aseptic surgery. As Dr. Osler pointed out, both these truths were in the latent possession of scores of workers, but it remained in each case for the genius of a single mind to evole the brilliant demonstration. At the same time he added the comforting reflection that the times are changing with regard to the receptivity of fresh discoveries. In support of that proposition, he contrasts the cordial welcome of the pallid spirochæta with the chilly reception of the tubercle bacillus. "We are better prepared to-day, and a great discovery like that of Shaudinn is immediately put to the test by experts in many lands, and a verdict is given in a few months. We may have become more plastic and receptive, but I doubt it; even our generation—that great generation of the last quarter of the nineteeth century —had a practical demonstration of the slowness of the acceptation of an obvious truth in the long fight for the aseptic treatment of wounds." Receptivity of new ideas, indeed, becomes difficult to most men after attaining middle age, and it is difficult to estimate the amount of mischief done by those in authority who still cling to the erroneous views of their earlier life. The progress of truth is slow, but in the end its triumph, in spite of all difficulties, is inevitable, a statement that applies to all spheres of human activity. This slowness of general acquiescence has probably proved fatal to many a great intellect, with all the finely tempered and emotional qualities that as a rule accompany genius. In presenting a graphic picture of Harvey's life, the lecturer threw into high relief the blindness to things at their feet that may affect even the most illustrious observers. This tendency is illustrated in the case of Harvey himself by his refusal to recognize the truth of the lymphatic c rculation. No less interesting is the failure of so acute a man as Fabricius, an enthusiastic teacher and investigator, to grasp the inwardness of the study on which his pupil, Harvey, was destined later to found an undying reputation. The mystery of this oversight is expressed by Dr. William Osler in the following fine passage: " How Fabricious, a man who did such work—how a teacher of such wide learning and such remarkable powers of observation, could have been so blinded as to overlook the truth which was tumbling out, so to speak, at his feet, is to us incomprehensible. But his eyes were sealed, and to him, as to his great predecessors in the chair (at Padua), clear vision was denied. The dead hand of the great Pergamite lay heav yon all thought, and Descartes had not yet changed the beginning of philosophy from wonder to doubt." There can be little doubt that many such mysteries await the evolution of medicine into the position of even a fairly exact science. Meanwhile it would be well to apply the moral of the Harveian orator, and to ask ourselves from time to time whether we may not be rejecting obvious truths and closing our ears to the gospel of unrecognized prophets in our midst.—Medical Press and Circular.

A Visit to the Surgical Clinic of the Brothers Mayo at Rochester, Minnesoat, U. S. A.

Being an extract from notes printed for private circulation by Major A. H. Nott, M. B., I. M. S., Calcutta, India.

The surgical work of the brothers Mayo at Rochester is done in a well-built and handsome building, St. Mary's Hospital, furnished much in the manner of a private mansion. It has about 150 beds, practically all in separate rooms. I gathered that this hospital had been built partly from subscriptions, but was entirely a paying hospital, being managed in all its business aspects by a Roman Catholic sisterhood. I understood the Mayo brothers had no pecuniary interest in the house part of the hospital, but that they had complete control of the treatment in every way—paid for the dressings, drugs, etc.; and the resident officers were practically their paid assistants. The patients paid separately for their medical or surgical treatment (practically only cases for operation were taken in)

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which was, I gathered, graduated according to their means and generally was an inclusive sum. Naturally the character and class of the room they selected would bear relationship to the amount of the fees charged them, reducing thus greatly the amount of inquisitorial inquiries necessary, especially in a country where outward appearance and evidence of education bear but little reference to the monetary position of the individual. The patients are admitted mostly from the "office" (so-called in America) of the firm, which is situated in the centre of the town, the hospital being about a mile away on the very outskirts. These consulting rooms were quite extensive, and during consulting hours (afternoon) were a centre of great activity. I was informed that patients presented themselves at an office, where various particulars of a non-professional character were taken down by clerks; they were given something corresponding to a history ticket, and then they made a journey through a series of examination rooms, each of a special character. In one the urine would be examined, and, if necessary, would be separated or a cystoscopic examination made; in another X-ray photographs would be taken and so on, according to the case, every kind of special examination would be made. Finally the patient would come before one of the partners, who would complete the diagnosis and decide what treatment should be undertaken. Patients were commonly sent to hospital at that time and generally operated on the next morning. It is evident that such a system of universal specializing under one roof is the way to obtain from division of labor its best resnlts.

At the hospital itself operations daily engaged two surgeons (usually the two brothers, but when I was there Dr. W. J. Mayo and his chief assistant, Dr. Judd) continuously from 8:15 a. m. till about 1 p. m. The same systemization was also observable, the most noticeable of the points being the regular way in which a microscopical diagnosis of tumors was made by a skilled pathologist in a laboratory adjoining the operation rooms whilst the operations were in progress. There were two operating rooms, with a sterilizing and instrument room between and connected with each. There was nothing very exceptional about these rooms, which were not very large; the furniture was not very elaborate, being mostly of white enamelled metal. Everything, however, was covered by sterilized cloths. The absence of lotions and douches was a very noticeable point, ablution of wounds or of the abdomen being practically never resorted to.

The surgeon and his assistants of all kinds, nurses, etc., wore masks over the head and face made of sterilized gauze, used india rubber gloves, and, of course, the universal white overalls. They did not wear special shoe coverings.

As is practically universally the case, a captious critic might have picked serious holes in the completeness of the aseptic technique, but doubtless, everything that matters had been provided against.

Operations are performed every week-day throughout the year. On the four days that I visited the Clinic the list amounted to thirteen or fourteen each day, of which at least ten were capital operations, and not more than two or three such minor operations as perinæorraphy, removal of sequestra, or circumcision. The great majority were major abdominal or pelvic operations. Perhaps two or three of the operations were postponed for want of time, but it was easy to see that the year's list would amount to close on 3,000 important operations which the annual report of the hospital claims. Dr. W. J. Mayo appears to be especially fond of gall-bladder, stomach, and female pelvic surgery. The other brother, Dr. Charles Mayo, who was on a holiday, I gathered, took greater interest in more general surgical work.

During the week I was there, there was an average attendance of quite forty medical men. I was told this was not at all unusual, as there is a continuous procession of men staying four or five days, or a week, and others then taking their place. The courtesy extended to visitors by Dr. Mayo was much beyond what could possibly be expected, and the British surgeons who had come on after the Toronto meeting were made especially welcome. Dr. W. J. Mayo has a very incisive and interesting way of imparting information, and continually laid down his views on many surgical matters in a forceful yet by no means egotistical fashion. We gathered that his views on many matters, especially on operating in cases of malignant diseases, were far more conservative than would have been expected.

Another detail that gave rise to astonishing comment by everybody who had followed the work for several days was the extraordinarily successful way in which ether was given. The anæsthetists were two ladies of middle age, who, we gathered, had devoted their lives to this work, but were not trained in medicine—an extraordinary circumstance, but still, from a surgeon's point of view, the anæsthetic could not have been better given; the absence of struggling, and also the absence of any alarming symptoms, was remarkable. I doubt, however, whether the hospital authorities in London would quite approve of the method on account of its cost. The method used was the drop open method on to a large mask, in principle the same as Esmarch's chloroform mask. A twig of gauze was inserted into a groove in the cork of an ordinary one-pound tin of ether, and by this a constant dropping of ether, on to the outside of the mask was effected. Inquiries brought out that by this method nearly three times as much ether was expended as in the apparatus usually used. One of these ladies had given ether to close on 20,000 patients without a death. One of the Roman Catholic sisters was Dr. Mayo's chief assistant. She had assisted him at every operation for years.

To give an idea of the daily work performed I will transcribe notes made during the four days I visited this Clinic in the first week in September, 1906. On September 5th the operations lasted from 8:15 a. m. till after 1 p. m., but at that hour the list had not been completed, and one or two were postponed to the next day, and this was about the experience every day.

1. To commence with, on September 5th I saw a case of appendicectomy for ordinary recurrent chronic appendicitis. The proceeding was identical practically with the operation as I saw it later performed at other American Clinics, there apparently being little difference now in technic anywhere. A gridiron incision was made in the flank as usual, and the operation was continued by the separation of the appendix by ligaturing the appendical mesentery with catgut, crushing the stump with one pair of forceps, removal of appendix between that and another pair of forceps. It was completed by the invagination of the mucous membrane by means of a little metal rod and a purse-string suture of catgut. A special reinforcement of this suture was made by reduplication at the seat of mesenteric attachment. The invaginated part was further drawn together by an outer row of Lembert's sutures.

During the morning, I also saw two or three other appendices removed incidental to other abdominal operations. Dr. W. J. Mayo did not go quite to the extent that is urged by some, viz., to remove the appendix in every case in which the abdomen is opened, whether the appendix is diseased or not, on the ground that it is useless and may become troublesome, and that little additional risk is incurred. He, however, removes the appendix in all cases where there is any chance of that organ coming into contact with any portion of the abdominal cavity interfered with during the course

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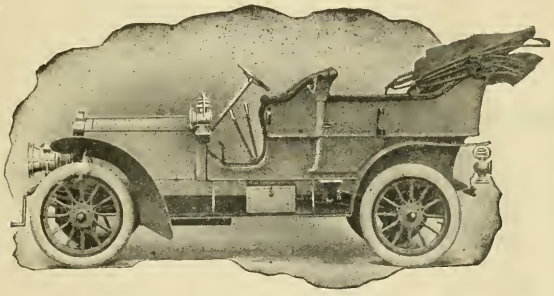

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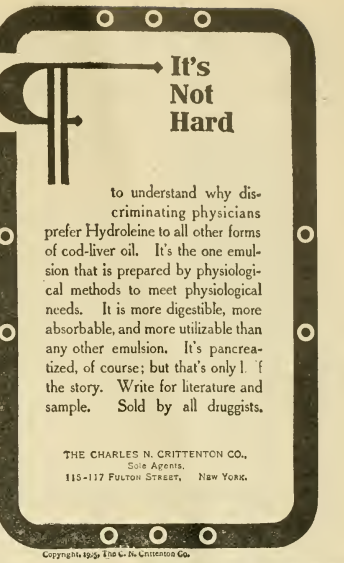
of the operation, such as in operations for ovarian tumors or pelvic inflammation on the right side; he also removes it if he sees the slightest deviation from the normal in the appendix, or if there has in the history been anything which gives rise to suspicious that there had, at some previous time, been trouble in connection with it. As a matter of fact it was removed in most cases in which the abdomen was opened for pelvic trouble, both in this Clinic and others I visited later.

2. The next case seen was one of gastro-jejunostomy for pyloric obstruction due to malignant disease of pylorus or duodenum. A double clamp was used for the stomach and intestine, bringing portions of both nicely into apposition for the suturing, i.e., it was an instrument with three arms. The posterior operation was performed and union was effected by sutures, Pagenstecher's linen (cellulose) thread being used. Dr. Mayo pointed out certain vessels in the gastro colic omentum which served as a safe guide between which to penetrate in order to reach in safety the posterior surface of the stomach.

3. A cyst of the broad ligament of large size, nearly filling the abdomen, in a woman forty-eight years of age. There was free fluid also in the peritoneal cavity; hence malignancy was suspected, and the patient was therefore kept on the flat, and not raised, as usual, into the Trendelenberg position. The tumor was removed from the abdomen by an unusually large incision and only punctured outside the abdomen. The pedicle was ligatured with strong catgut and the tumor handed over to the pathologist for examination. By the time that the pedicle had been secured, and the appendix removed, the pathologist returned and reported there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were signs of malignancy in the tumor. Dr. Mayo then proceeded to remove the remaining ovary and to perform a supra-vaginal hysterectomy. He said that this should be done in all cases of ovarian cancer, but that it was not necessary to remove the cervix, which was hardly ever involved; he said that ovarian cancer passed from one ovary to the other, and then to the uterus. During the process of covering up the stump with peritoneum he secured the round ligaments to the stump of the cervix, in order to give a support to the floor of the pelvis.

From remarks made during this operation, it appeared that it was the practice in cases of this kind not to keep the patients lying still on their backs for many days; it is the practice to slightly raise such cases as this in bed from the first, the next day to allow them, if wished for, to change from side to side, and in a very few days they are propped up to the sitting position in bed—in fact, it is believed that the risks of keeping patients, especially rather elderly ones, lying flat on their backs are greater than the dangers likely to arise from traction on the severed and unhealed tissues. Thus appendix cases are made to walk about at the ninth or tenth day. He also instanced, as an argument in favor of this view, that phlebitis, occurring after pelvic operations, was due to the length of stay in bed, and not to inflammatory causes in extension from the wound, since it, he said, generally occurs in the left extremity after right side operations.

4. A case of retroflexion of the uterus with a torn perineum accompanied by old standing adhesions from pelvic inflammation.

He started by repairing the perineum, as far as I could make out, in the fashion of Lawson Tait, but two very deep muscular catgut sutures were used, being buried. He finished this part of the operation by making what he called an artificial hymen; this was for the purpose of preventing the urine soaking into the line of sutures, and would allow the use of the catheter to be abandoned very early. The abdomen was then opened, considerable adhesions were found, which were separated, and then the operation, which in America is called an internal Alexander, was performed. The internal Alexander operation for retroflexion or prolapse of the uterus seems to be the favorite treatment for this condition in America; it varies in details in different hands, and does not always go by this name. It is evident that at the present day there is a radical difference in the treatment of these conditions on the different sides of the Atlantic. The discussion on Dr. Giles' paper on ventrofixation of the uterus at Toronto showed this divergence very markedly. Dr. Mayo—and he apparently voices the general trend of opinion in the United States—believes neither in ventro-suspension, nor ventrofixation. He considers they are altogether too artificial and opposed to the natural processes of suspension of the uterus. He, with most American surgeons, believes that Alexander's principle was right, though the method Alexander advocated of carrying out his principle is unsatisfactory and uncertain. American surgeons prefer, therefore, to shorten the round ligaments under inspection inside the abdomen. This was first attempted by the simple plan of practically tying a bow knot, but the operation which Mayo performs was devised to follow more closely the principle advocated by Alexander. The operation as I saw it performed was to separate the peritoneum from the posterior sheath of the rectus on either side for about 2 inches with the end of a rather fine pair of dressing forceps, to pass these dressing forceps through the peritoneum in the neighborhood of the internal ring, to seize the round ligaments about 1 1-2 inches external to the uterus, and to bring the doubled ligaments through the openings in the peritoneum and suture them together across the middle line. In another case, on a subsequent day, the round ligaments being shorter, they were sutured to the tissues and not brought across to the middle line.

In this case, as in most abdominal sections, he anchored the bladder below the line of incision, as he says that union of the bladder to the cicatrix is one of the causes of the chronic, very distressing, urinary trouble after abdominal section, which tends to give a bad name to surgical enterprise.

5. The next case was an anterior gastro-jejunostomy for tumor of the pylorus causing obstruction. There was a doubt as to the nature of the tumor. When the abdomen was opened Dr. Mayo considered it to be malignant, but the pathologist, to whom a small snip was given, did not confirm this; but Dr. Mayo preferred to trust to naked eye appearances, believing that he had not removed a portion of the tumor itself. He performed an anterior junction in this case, because the extensive adhesion prevented the stomach being satisfactorily drawn out of the abdomen, and further, he feared to cause, for tue same reason, hæmorrhage in perforating the gastro-colic omentum. For the connection he used McGraw's ligature of which I had previously not heard; it is simply an india rubber tube about the size of a feeding-bottle tube, but more solid. The intestine was roughly sutured to the stomach by a posterior half-circle, the tube threaded to a needle passed in and out, first through the intestine and then through the stomach and back again, and tied tightly when on the stretch. The knot is secured by a treble silk ligature and tied, and the ends of the tube cut off close. The posterior half-circle of silk is then continued round. It was said the ligature would make its way through and pass out by the intestine. Its advantages over Murphy's button is that there is no danger of its passing into the stomach, instead of into the intestine, and remaining there, and the operation is an easier and quicker one than union by sutures sufficiently accurate to at once prevent leakage. It is evident that until separation of the sphacelated part of the stomach takes place complete obstruction remains, but it is said this lasts for two days at the most, and in most cases little harm is done by even a much longer abstention from feeding by the mouth.

6. This case was followed by an abdominal removal of an extensive malignant disease of the upper third of rectum and sigmoid flexure in a man of about 60 years of age. The ordinary central incision was made and the liver examined for presence of secondary nodules. Such not being found, the growth was extirpated in an extremely bold manner. To an onlooker it appeared to be working very much in the dark, and hence highly dangerous, but the success was complete; scissors were used to remove the intestine with the growth, the intestine being of course clamped off above and below, but arteries were clamped as the incisions progressed. The diseased part having been removed, a flap incision of considerable size was made through the left lateral abdominal wall. The upper incised end of the gut, after being closed carefully, was brought through this incision and sutured in and left for subsequent opening out. The lower end was treated with the actual cautery, was deeply invaginated, and drained from the rectum, the peritoneal covering being closed from above after the invagination. On inquiry before leaving on the Saturday, it was stated this patient was doing very well.

A similar number of operations of only a degree less importance were simultaneously performed in the second operating room.

September 6th.—The operations performed this day were, on the whole, of greater importance, and showed Dr. Mayo's great manipulative skill and resourceful rapidity perhaps more markedly than on the other days, the gall-bladder and stomach

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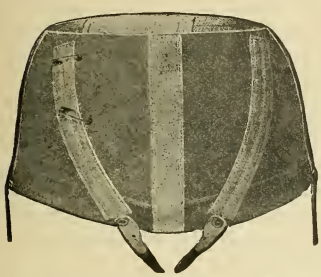

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operations being exceedingly brilliantly performed.

1. Cholecystectomy. Case diagnosed as gall-stones and probable appendicitis. An incision was made at edge of rectus, rather lower down than the usual incision for gall-bladder operation; through this the appendix was examined and found healthy. This incision I saw made several times later, as it was recognized that mistakes of diagnosis are not uncommon, either that of mistaking gall-bladder trouble for appendix trouble or vice versa, especially when relying on a history alone.

At the operation, several gall-stones were found in the gall-bladder, and were removed by a special long scoop; but one was found in the duct of the gall-bladder and could not be brought into the bladder. Cholecystectomy was therefore performed. In closing the wound the omentum and colon were brought into place to keep the small intestines from coming into contact with the seat of operation, and, further, a double piece of gutta-percha tissue was lightly sutured to the skin and tissues to prevent the adhesion of these to the area denuded of peritoneum. A gutta-percha and gauze (cigarette) drain was used.

2. Another Cholecystectomy. In this case the gall-bladder was distended to about the size and shape of a sausage. One stone was implanted in the cystic duct. It was evident that the operator favored cholecystectomy instead of cholecystotomy where there was any risk of bruising tissues in removing the contents of the gall-bladder or ducts.

3. The next case was one for a persisting sinus after an operation, by another surgeon, for gall-stones, two years before. He stated that these cases of persisting sinus usually meant that a gall-stone had been left behind and, that, where the discharge consisted solely of mucus or muco-pus, it meant that the calculus was in the gall-duct and not in the common duct, in which latter case it would contain bile.

At the operation, a vertical incision in the usual site (outer edge of right rectus) was made, although at the previous operation the incision had been a very large oblique one. The sinus was completely dissected out and the remains of the gall-bladder removed (cholecystectomy). A calculus was found imbedded in the duct in the midst of cicatricial tissue.

4. A Large Ovarian Cyst. A very large incision was made to evacuate the tumor without reducing its volume. The pathologist declared it to be non-malignant. Great interest attached to the unexpected discovery that the uterus was a well-marked bifid one. The tumor arose from the ovary connected with the left uterus.

The appendix was removed in this case, although it showed little apparent signs of disease.

5. Gastrectomy. This was, I think, the most brilliant operation that I saw, both from its magnitude and on account of the wonderful manipulative skill shown. The control of hæmorrhage, indicating extreme familiarity with the blood supply of the stomach, was masterful in the extreme.

The operation was done on a woman of 41 years of age for malignant disease of pylorus. The first step was to control the blood supply, which, as stated, was done with extraordinary precision and despatch; the duodenum was then separated, then the pylorus, with rather more than one-half of the stomach, was removed. The upper half of the stomach was controlled by special large clamps; one large clamp was applied from below, extending right across the stomach, and a second smaller one to reinforce the first clamp was also applied from above at the lesser curvature, which part was said to be likely to slip from a single clamp. The direction of the incision was oblique, removing more from the lesser than the greater curvature. The clamps were covered with india rubber tubing. The actual cautery was used to the severed mucous membrane before the clamps were removed. The stomach was closed by what is now generally known

in America as Mayo's suture, a very clever yet simple device for inverting and tightly closing two cut edges of this nature. It is difficult to give a description of this suture which can be followed; it is a continuous suture which, with but very little assistance with instruments, turns in and firmly closes a great length by simply pulling on it; it is really, however, a continuous suture on the principle of Lembert, the double insertion beneath the sero-muscular coat being made parallel to the cut edges alternately. The operation, of course, was completed with a gastro-enterectomy, which was performed with sutures. The patient was under the anæsthetic less than an hour.

6. The last operation I saw that day was for cancer of the cervix uteri. The patient had been prepared for vaginal hysterectomy, but after final examination, Dr. Mayo decided not to perform it, as he said he could not get beyond the disease. He curetted the growth and cauterized it most freely, indeed to the onlooker it appeared that the succeeding sloughs must open up the bladder. He stated he was not much of a believer in extensive operations for uterine cancer, and spoke sarcastically of Wertheim's and other similar operations, based on the complete removal of pelvic glands. H abased these views on the assertion that recurrence took place through extension around the ureters, and that infection, or rather recurrence, in the glands took place later. He said the proper treatment would be transplantation of the ureters into the bladder or rectum, but results had been unsatisfactory.—Indian Medical Gazette, Calcutta, India.

The Exudate in Meningitis.—Speroni (Arbeuen aus dem patholog. Institut Berlin) made careful examinations of the exudate in: (1) epidemic cerebrospinal meningitis; (2) tuberculous meningitis; (3) pneumococcus meningitis; and (4) streptococcus meningitis, either in smear preparations or in cross sections. In the first group, there was as a rule a large amount of exudate, consisting in sero-albuminous fluid and neutrophile leucocytes. The latter had reached the subarachnoidal spaces by increased diapedesis, and presented various forms of degeneration. The exudate contained also lymphocytes as well as a few mononuclear leucocytes and erythrocytes. The cells of the adventitia of the vessels were found to be proliferated, increased and enlarged. They had become detached and had developed phagocyte properties, for they were seen to enclose leucocytes and erythrocytes. The cases with a chronic course presented a scanty exudate and only a few polynuclear leucocytes, whereas the lymphocytes and mononuclears were more numerous. Lumbar puncture yielded similar results.

The second group presented a large amount of fibrin in the exudate, together with neutrophile leucocytes and mononuclears in various stages of degeneration. Very similar conditions were observed in streptococcus meningitis.

The examination of the fourth group yielded exudate plus tubercles, the latter consisting in circumscribed cellular infiltrations of the adventitia and the entire wall of the veins, caused by the tubercle bacillus. The cells were chiefly lymphocytes, with a few mononuclear leucocytes, all originating from the blood. The epithelioid cells were found to be caseating lymphocytes. This caseation is progressive and invades the vascular wall; it may give rise to proliferation processes in the intima, with obliteration of the vessel. The entire vascular wall ultimately undergoes caseation. The exudate contained fibrin, and a majority of mononuclears, also some lymphocytes. The chronic cases presented many mononuclear cells, with a small amount of fibrin, whereas the acute cases had a large number of lymphocytes and much fibrin. The puncture fluid of tubercular meningitis presented similar findings.

Sympathetic Ocular Symptoms.—Querenghi (Ann. d' Oculist) describes the case of a woman 55 years of age, who had suffered for a long time from left fronto-orbital neuralgia. She suddenly noticed a considerable clouding of her eyesight (left eye), following the subsidence of the habitual pain. Examination of the eye showed the palpebral fissure to be somewhat narrowed; the bulb slightly prominent; the pupil very small and not responding to light; the cornea invaded by a diffuse parenchymatous infiltration in shape of a very network, with marked diminution of tactile sensibility. The entire symptomatology resembled that determined by the experimental section of the cervical sympathetic. The absence of all inflammatory manifestations permitted, moreover, the exclusion of the diagnosis of keratoiritis. At the end of four months, the disturbances still persisted without much change, notwithstanding the institution of treatment (installation of atropine, potassium iodid internally).

Endeavoring to determine with greater accuracy the seat of the obscure lesion of the cervical sympathetic, the author places it at the level of the cavernous sinus, at the point where the carotid sympathetic anastomoses with the first branch of the trigeminus, at its entrance into the orbit. This theory is supported by the neuralgias of the first and second trigeminal branch, from which the patient had been suffering for a long time.

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Hysteria.*

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Introduction.—There probably does not exist in the realm of medicine a disorder more interesting than hysteria. The physician recognizes that this protean disease, scintillating in its variations, is prone to intrude itself into all branches of his work. He feels the constant call for diagnostic skill which this deceptive mimic of all diseases imposes upon him. No physician is master of his art until he has so unravelled this tangled skein of symptoms as to be able to recognize clearly those tell-tale evidences which attend all its manifestations, and to know whether the disorder in hand is Simon-pure, or is complicated by hysteria, or is one in which organic disorder is simulated. So the importance of an intimate knowledge of the principles which underlie this condition cannot be exaggerated.

The amount of literature presented to the specialist in the study of hysteria is endless, and the writer's chief difficulty consists in elimination. Some headings must be practically disregarded, but in this paper we will dwell on the Hysteric State, Diagnosis, including the important Hysteric Anomalies and Treatment.

The laity and many practitioners, through a lack of adequate understanding of this condition, are prone to misjudge the hysteric patient. The victim's actions are often confused with deception, or active simulation. An imperfect conception of the patient's responsibility, and confusion between the expression of the disorder and the real condition, are prone to permit an attitude of indifference, impatience, or even contempt for the patient. Hammond has well expressed a reason for this in his aphorism, "It looks like they will not; they say they cannot; but the truth is, they cannot will."

Hysteria is now properly classified as a psychonurosis. It is found that domination of one or more fixed ideas underlies and controls the whole series of nervous manifestations.

Definition.—Probably no better definition is now available than that of Moebius. "Hysteria is a state in which ideas control the body, and produce morbid changes in its functions."

Etiology.—Hysteria, in either its mild or severe manifestations, is the most common nervous disease. We will review the chief predisposing and exciting causes.

Heredity.—Heredity, that universal birthright, which carries with it any congenital vices of organization, tends to the production of hysteria. Environment is too often simply a continuation of heredity, and no factor can be mentioned which more strongly favors the appearance of this disorder than that of injudicious training. When we allow our children to grow up with a selfish disregard for the rights and feelings of others; when we weaken the naturally deficient self-control of youth by sympathizing with every woe, however trivial, and gratifying every whim, however selfish, we are providing an evil day for the ones we are trying to make happy.

Age.—The appearance of hysteria is rare before ten, and after forty-five years of age, but it is found in young children, and some carry it down through old age, parting with it only at the grave. Its appearance is most common in the second and third decades of life, when the deeper emotions are evolved, and before strength of character is established.

Sex.—Contrary to the popular idea, the disorder in question is not limited to women. But it has been well said that the seeds of hysteria have been sown in every woman's nature. Many males are victims of this condition, and are more apt to suffer the severer forms, and are less amenable to treatment. Let us at once be disabused of the erroneous idea that women suffer from hysteria because of the influence of their sexual organs. This mistake has been too frequently made, with resultant damage which cannot be recounted. It is a disease of all people and all climes. The Latin, the Slav, and the Jew are particularly susceptible. The severest types of hysteria are rarely seen in America. The clinics of France and Italy furnish practically all cases of the grand attack.

Of the exciting causes, emotion and shock are responsible for a large proportion of cases, it being understood that a psycopathic temperament is a practical essential. Given such, any severe emotional disturbance, as fright, shame, worry, love, anger, disappointment, is ofttimes sufficient to snap the attenuated bonds of self-control. Strain, either mental, moral, or, less frequently, physical, determines many cases.

Traumatism.—Traumatism is particularly active in determining the male hysteric, possibly because males are more exposed in many ways. Electric shocks, lightning strokes, railroad accidents, acute painful

*Read before the Buncombe County Medical Society.

attacks, and various intoxications are common among inciting factors. It is interesting to note that the result is not dependent upon the severity of the physical injury, but almost entirely on the intensity of the mental shock, while in many instances there is an intervening period of auto-suggestion, or the "period of meditation," as described by Charcot.

Epidemics.—Epidemics of this disorder have probably always been more or less frequent. Many a poor wretch has gone to the stake for no worse a crime than possessing "marks of the Devil," as some of the cutaneous stigmata were denominated in the dark ages. The beheaded witches of the eighteenth century were officially-murdered hysterics. Forms of religious excitement, obviously hysterical in nature, have swept over Europe and America repeatedly. Wherever individuals are closely associated, as in schools, prisons, factories, epidemics of some form of this disorder are not uncommon. Susceptible patients in hospitals are frequently victims to this mimicing disease. They will often reflect the symptoms of real diseases, which they see in others, or have themselves previously experienced. Of course, active deception is not infrequent in hospital cases.

Symptoms.—The symptoms of hysteria are numberless, though they lend themselves nicely to intelligent classification. All of the symptoms may be sub-divided into the stigmata, or persistent symptoms, and the accidents, which are intermittent or transitory in character. The stigmata demand intelligent study. They are the ear-marks of the disease. Their presence or absence is very important from a diagnostic standpoint. In fact, they constitute in their totality what is termed the hysteric state, ability to recognize which should be possessed by every physician. The stigmata are classified as sensory, motor, and psychic, while the sensory are sub-classified into the anesthesias, the paresthesias, and the hyperesthesias.

Anesthesia.—The anesthesias affect the sensation in all its expressions. They may exist in any degree, from absolute loss of thermal, pain, or tactile sense, to a mild modification of either. The patient is usually unaware of the existence of the anesthesias, unless her attention has been called to it. The superficial anesthesias are often absolute, and present some very interesting anomalies. The skin may appreciate heat, and yet not recognize the prick of a pin. Co-existent with this may be an anesthesia of the deeper structures, bones, nerves, and muscles being devoid of feeling. The deep anesthesias may exist independent of the superficial. Deficient sensation may involve taste, smell, or hearing, while some of the most interesting hysteric symptoms and anomalies exist in the disturbances of vision. Concentric contraction of one visual field is very frequently found, while still more characteristic of the hysteric state is a persistent change in the extent of the color fields. In the normal eye the blue field is the most extensive, compared with which the red field is limited. In the hysteric eye the red field predominates; and when some of the color fields disappear, as not infrequently happens, the red, which normally disappears first, still persists. Errors in accommodation, diplopia, monocular vision, and exaggeration or contraction of the perceived objects are also common to the hysteric eye. In its distribution, the anesthesias may involve an entire half of the body, or be limited to an area as small as the finger tip. The left side of the body is most commonly involved. Geometric areas of anesthesia are most interesting, for the area of the disturbed sensation is absolutely independent of any relation to nerve distribution. The finding of such a condition is, of course, diagnostic. A careful search is often necessary to disclose the small islets of anesthesia, the finding of which is often essential to clear diagnosis. Frequently a nipple, or a part of the conjunctiva, or a small area about the mucus borders will be absolutely devoid of sensation. It is well to remember that these anesthesias are often so absolute that the skin may be transfixed without the patient's knowledge, and this even in sensitive parts.

Paresthesia.—The paresthesias are not so common, though itchings, tinglings, and such disturbances in sensation may be observed.

Hyperesthesia.—But when we come to the hyperesthesias, we find them to be legion. These painful areas are often the burden of the patient's complaint,—texts upon which, with, and often without encouragement, she can discourse wondrously and at length. Some of them are so characteristic as to be almost pathognomonic. The painful ovary, the sensitive spine, the tight feeling in the throat, called the globus hystericus, and often mistaken for a foreign body; the clavus, or painful area in the head; painful joints, hypersensitive breasts, and the sensitive testicle are common hysteric manifestations. That these sensations are psychic, and not sensory, is easily demonstrated by acutely diverting the patient's attention from the manipulation, when it will often be found that on deep pressure the part or organ is really less sensitive than normal. When a light touch produces pain, while force is tolerated, hysteria is imminent. In some patients these hyperesthesias are so

closely connected with the convulsive manifestations of the disease that firm pressure over such an area may produce a convulsion; or, if the convulsion is on, similar pressure may cause a cessation.

Motor.—The motor stigmata should not be confounded with the motor accidents, which will be considered later. Nor are they as characteristic as the sensory and psychic states. Those marks of hysteria which we note in studying the patient's movements are characteristic, in that they occur in volitional, not automatic action. When the patient under observation is asked to perform some untried movement his action will be found retarded, often slightly incoordinate and lacking in force, while the same patient will readily perform movements equally complex, if automatic, as well as a normal individual. These points are readily exhibited by asking the patient to use the dynanometer. It is evident that the difficulty is not due to lack of power or loss of dexterity, but is mental, and the result of lessened attention and diminished will power.

The Mental Stigmata.—We now approach that division of our subject which is a most fascinating field to the mental student, and a clear conception of which is essential to an adequate understanding of this multiform malady. In considering the mental stigmata, we will arrange them under the primary psychological heads, and consider them as they effect the intellect, the emotions, and the will.

Intellectual Stigmata.—To fathom the mind of the patient is to obtain a grasp on the lever which controls his personality. In analyzing the mind of the hysteric, we lay before us a printed page, as it were, telling us clearly the whys and wherefores of this seemingly complex condition. Probably the fundamental fact in the hysteric's mentality is the domination of the fixed idea, or at best a fixed group of ideas, limited in extent, which is insistent and persistent, which is excessively over-valued, and which pervades all the patient's mental processes, so as to reduce his mental horizon to a small area, the center of which is usually the patient's own ego.

A moment's thought will show us how such a narrowing of self will permeate the whole texture of the patient's existence, and color and discolor mental processes and physical expression, destroy emotions, paralyze the will, and limit the higher activities of the intellect to narrow bounds.. This condition disturbs memory as it limits concentration; the mind cannot be absorbed in a fixed idea, and give adequate attention to other impressions; hence, recent memories are usually blurred. This further permits involuntary deception, for the imagination, centering around the fixed idea, imperfectly interprets other thoughts when presented, the result being actions, conclusions, and statements markedly at variance with the facts. Much of the hysteric's deception is thus accounted for. Simulation, so marked in many manifestations of hysteria, has its root in similar distorted mental pictures. Impressions often fail to reach the field of consciousness, or again, are confused with some fixed idea; so the hysteric, as a rule, does not simulate for pleasure, notoriety, or to attract attention; though of course too many, in addition to receiving the pleasures of sympathy, are relieved from the responsibilities and duties of life when having a spell. and the will is deliberately allowed to fall into welcome servitude. Let us understand that most of the exaggeration of suffering results from self-deception, based upon this mental condition.

An imperfect conception of right and wrong must also attend such mental perversion. Introspection, resulting from the domination of the fixed idea, results, of course, in the excessive self-consciousness so often marked. Many hysterics appear to be intellectually brilliant, and their knowledge may cover a large field, but, almost without exception, it will be found that their learning is superficial. It could hardly be otherwise, for we must not forget that these mental stigmata are prone to persist for years, and this hysteric state tends to become the hysteric's character.

Emotions.—As a result of the limitation of ideas, the number of emotional interests is necessarily curtailed. A narrow intellectual field necessarily limits the scope of the emotional field. Hysterics undoubtedly feel intensely ofttimes on a few subjects—subjects usually related to some self-interest. Outside of this narrow sphere they are, as a rule, incapable of sustained feeling. As their interests are so generally selfish, it follows that the hysteric is incapable of feeling the nobler emotions. While they not infrequently express intense gratitude and devotion, or affirm undying loyalty, their actions soon prove that these sentiments are but superficial, and in a few hours, or days, or weeks at the best, the loyalty, the devotion, the sympathy, or the gratitude, have departed.

Their field being thus narrowed, their independent emotions thus limited, it is but natural that they should crave sympathy for the objects of their feelings. But, unfortunately, many of them are willing to prostitute much of their self-respect to gain this coveted expression; and the sympathy which spontaneously comes to the physician from those who are dependent upon his

services, worthy or otherwise, probably explains the hold which he sometimes obtains over the limited affections of a hysteric patient.

The feelings beyond the realm of their myopic intellectual vision are often blurred. So they may be overwhelmed by indescribable sensations, "suffering pains, excruciating," though indefinite. The fundamental emotional stigma is the hysteric's suggestibility. Swayed, vacillating, and unstable, they are oft victims of the designing; yet this suggestibility, which would seem to simplify their treatment, is apt to be nullified by the constant tendency to return to a fixed idea. It is only when the suggested idea is so potent as to displace the fixed idea, that permanent results may be expected. This explains that interesting and not unusual case of the bed-ridden hysteric who for months has been incapacitated by some one of the motor accidents, who, when the house is afire, leaps from his bed, and reaches safety with celerity, the idea of self-preservation in the face of imminent danger being stronger than the old fixed idea of paralysis or contracture.

It is easy to see how potent and persistent is auto-suggestion when it comes along the line of least resistence,—the fixed idea. The patient feels no form of physical discomfort which may not thus be implanted. The recognition of this characteristic of emotional stigmata explains the power of the quack, the mesmerist, and of Christian Science to cure by introducing a set of ideas with sufficient emphasis to displace the ones formerly in control. The hysteric is essentially ruled by his feelings uncontrolled by the will. As these feelings are based almost invariably upon the self-centered idea, the hysteric is, as a rule, selfish. Through every relation in life there runs a steady, subconscious current of selfish interests or injuries, or disappointment, or fear, so that the rights and needs of others must necessarily be unobserved in their true relation.

Will.—A strong will demands sustained and consistent effort. Willfulness is sustained and consistent effort directed toward selfish ends. The hysteric has a weakened will, though he is often intensely willful. The manifold disturbances of attention, of course, depend on the diminished volition. The hysteric's attention is characteristic in being easily gained, but quickly lost, if it involves any subject which lies outside his own personality, or is not in sympathy with the fixed idea.

The distractibility of these patients naturally leads to many errors in interpretation, and often results in the forgetfulness mentioned above, and explains many of the inconsistencies of the hysteric's actions. Vacillating, lacking in determination, deprived of any object in life, the hysteric is to be pitied.

From the above, it is clear how the hysteric martyr is possible. The fixed idea becomes the pivot about which revolve all other relations, and it is possible for many of these natures to so concentrate here as to eliminate all other impressions; thus they may suffer, often die, for an idea which is beyond the touch of reason,—a seemingly paradoxical "strength in weakness." In short, the hysteric's mental state may be described as being predominantly controlled by a limited group of ideas and their associate emotions, impressionability with instability, and willfulness without will.

Hysteric Accidents.—We now reach the hysteric accidents, that transitory class with its seemingly unending variety of expression which constitutes these attacks. It is these accidents that we, as physicians, are usually called upon to attend. They may be designated as motor, sensory, visceral, and vasomotor.

Grand Attack.—The perfect picture of the motor accident is the so-called grand attack of Charcot, often termed hystero-epilepsy. This manifestation is rarely seen in the United States, though not at all uncommon in Europe. It will be sufficient to refresh our memories to merely outline the stages of this superb neurotic storm. In the susceptible victim, some ordinary emotional disturbance, or pressure upon some one of the hysterogenic zones, may determine the onset. In the prodromal stage, the *globus hystericus* gradually rises to the throat, accompanied by a sense of restlessness and general discomfort. Then occurs the epileptoid period, in which tonic convulsions, followed by clonic convulsions, end in the phase of resolution. Then follows the period of clonism—first, slow contortions, the *arc de cercle*, *pleuristhotanus*, and other distortions following each other. Then the climax of the motor period is reached in the rapid and violent grand movements. This is followed by a period of passional attitudes, in which terror, love, rage, gaiety, and other emotions are depicted by the patient's posture. The final period is delirium, a series of hallucinations being followed by resolution.

These attacks occupy from ten to thirty minutes, and are followed by a sense of relief, as the atmosphere is cleared by a storm.

Partial Attacks.—In this country we see, as a rule, only the partial attacks; phases only of the complete grand attack.

Globus Attacks.—Commonest of these is the globus attack. Few women fail to ex-

perience some time in life that peculiar constriction of the throat, the so-called "lump in the throat." While it usually lasts but a few hours or days, it may become a stigma, persisting through years.

Syncopal Attack.—The syncopal attacks are very interesting, and, to the uninitiated, may be alarming; following some slight aura of discomfort, the patient may fall, though always without injury to himself, and be found relaxed and inert, with normal pulse and slow respiration. The pallor of cerebral syncope is absent, the face being even slightly flushed at times. Very characteristic of these attacks is the presence of a tear-drop at the internal canthus, which may remain for sometime without change.

Sleep Attack.—The syncopal attack may be prolonged into the sleep attack. This is a trance-like condition, very like unto ordinary sleep, save the slight contraction about the eye lids, which resist attempts at opening. This condition may persist from a few hours to many days, the patient afterward reporting many things that happened while those about her supposed her to be unconscious.

Somnambulic Attacks.—Sleep-walking is always interesting. Patients may travel about the room, or for miles across the country, and when awakened be utterly astonished, having no knowledge of what transpired during their adventure. During subsequent attacks, however, they will recall happenings that occurred during former somnambulistic experiences, and thus build up that most interesting mental curiosity, the double personality, one period of consciousness being associated with one set of experiences, while the other possesses an absolutely distinct recollection.

The anomalies presented by the hysteric accidents will be reserved for consideration under the head of diagnosis.

Paralyses and Contractures.—Hysteric paralyses are not uncommon, usually following some emotional shock. Hemiplegia, usually involving the left side, is not infrequent. It is rare, however, for the inability to be complete, some muscles retaining their function. Monoplegias may be single or multiple. Hysteric ptosis would be very confusing, were it not for characteristic anomalies. Attacks of hip-joint disease, hysterical in nature, may be accompanied by hysteric oedema, and may mimic the organic disorder very closely. Astasia Abasia is another of the interesting tricks which the hysteric idea may cause to be played upon the patient. It consists in the involvement of co-ordination for walking and standing. Hysteric contractures are interesting and characteristic, and present a loss of power, plus an involuntary rigidity,—what might be termed a spastic paresis.

Spasms.—Hysteric spasms are numerous. The sufferer may be seized by rhythmical movements of the limbs or face, which may continue for hours or even days. Opening and closing of the lower jaw is not infrequent, while nodding of the head may persist until the looker-on is wearied with watching. Intermittent spasm of the diaphragm is betrayed by a peculiar barking cough, which may be repeated indefinitely.

Hysteric Tremor.—The hysteric tremors are even more interesting, as they closely simulate those of organic nervous maladies, and may occasion errors in diagnosis. But by careful search, if the hysteric stigmata are found, the counterfeit is discovered. The tremors may be localized or general, fine, coarse, rapid, slow, or intentional, even as in organic disease.

Sensory Accidents.—The sensory accidents of the hysteric, being usually painful, are frequently causes for bitter complaint, bringing the patient to the physician repeatedly for relief.

Hysteric Headache.—The hysteric headache is usually periodic, and may so closely imitate organic or reflex forms as to require a diagnosis by therapy.

Pseudo Meningitis.—Most decidedly deceptive is the pseudo meningitis which may demand acute diagnostic acumen to differentiate. Spinal irritability is not uncommon. The seventh cervical is sensitive in most hysterics. The coccyx may be exquisitely tender. Other vertebrae may be so tender and so protected by the patient as to simulate Pott's disease, yet on careful examination, with the patient's mind diverted from the sensitive point, deep pressure is possible without evidence of pain. Pseudo angina pectoris is most distressing. The patients appear to suffer even as those having sclerosed coronaries; yet a new insistent idea will cure.

Visceral Accidents.—Sudden aphonia is usually hysteric. Dyspnoea with respirations reaching sixty, eighty, or one hundred a minute, with normal pulse, due to the involvement of the diaphragm, is one of the hysteric accidents which may be serious. Relaxation usually occurs when apnea is reached. Spasm of the glottis has occurred with fatal result.

One other condition in the hysteric which has proven fatal in a few instances is that of starvation. Patients have refused food until there was permanent organic damage, from which recovery was impossible—such impairment of the stomach that digestion could not be resumed. "Fasting girls" have been the wonder of all ages, but as a

rule it will be found that simulation here approaches the intentional, and that they usually take food when not observed. This accounts for a good many tales of abstinence from food for months at a time.

Pulmonary congestion, with hysteric cough, the expectoration of blood, accompanied with emaciation, is certainly very deceptive. But, as a rule, there is no temperature, and the absence of tubercle bacilli and the presence of the tell-tale stigmata will clear the question. In hysteric vomiting, which may be kept up for months, there is undoubtedly a certain percentage of food retained. Hysteric anuria is usually accompanied by vomiting, but it will be found upon examination of the ejected stomach contents that the urea is being eliminated by this means.

It is the experience of many physicians to see a case of phantom tumor, which may simulate organic tumor or pregnancy, depending upon the patient's idea. Such are the tumors which disappear under anesthesia. They are produced by a spastic contraction of the diaphragm with relaxation of the abdominal muscles. Excretion of large quantities of limpid urine of low specific gravity accompanies a majority of the convulsive crises. A characteristic of this urine, not elsewhere observed, is an inversion in the relative proportions of the alkaline and earthy phosphates. Diabetes Insipidus, or simple polyurea, is classified by a few authorities as being purely hysterical.

Hysterical Fevers.—Hysterical fever may appropriate to itself all known forms. No matter how intense, or how prolonged, emaciation seldom results. The pulse often remains normal, even though the temperature runs 105, sometimes 110. Hysteric temperatures of 114 and over have undoubtedly been correctly reported. The differential diagnosis of these fevers presents no little difficulty at times.

Vaso-Motor Accidents.—There is, without doubt, an element which is more than ordinarily impressive in the occurrence of bloody sweat, and bloody tears, yet these are hysteric manifestations which were not uncommon during the middle ages, and have been termed the stigmata of crucifixion. The appearance of bloody marks, purpuric in nature, sometimes taking the form of the Cross, or some other symbol, strikingly show the intensity of the power of the mind over bodily functions. It is interesting to remember that the skin of many hysterics shows quite clearly the phenomenon of dermographism. Quite perplexing, and at times alarming, is the hysterical breast. This organ may suddenly enlarge, throb, be markedly sensitive, which condition may persist for some days, and simulate abscess, or for months, giving the impression of a new growth.

Course.—Hysteria is truly chronic in its course. The stigmata, when once established, may persist throughout life. The mental stigmata may become as much a part of the patient's character as her complexion is part of her appearance. The accidents are more or less self-limited. The majority of them can be controlled with comparative ease, and the patient relieved. While chronic, yet it is a manageable disease; and under proper surroundings, and influences pregnant with force and reason, the patient may be brought out of herself, and released from the narrow confines of her bondage. Moreover, the unexpected not infrequently happens. Interposition of some new conception may bring relief, as sudden as the former condition seemed hopeless. Conversion, new responsibility, a new object in life, or a new treatment may prove the magic wand.

Diagnosis.—Hysteria pure, and hysteria complicating organic disease, have caused many errors in diagnosis. Among the great number of simulated disorders, the following conditions demand particular differentiation. Neurasthenia is at times difficult, and may require careful discrimination. The early stages of dementia praecox often present symptoms which are markedly hysterical. Simple emotional disturbance, as anger, disappointment, or excessive grief, is closely allied to hysteria, and it is noteworthy that the hysterical seizure is at times but an expression of the patient's innate meanness. Of course, willful deceit must always be kept in mind.

When fully developed, hysteria is one of the most plainly labelled disorders. If we note intelligently the mental characteristics, and isolate the stigmata, light will break upon many obscure cases. It is well to remember that no case of hysteria will be found that does not present some exaggeration or paradoxical element.

Especially diagnostic are the following points: The contraction of the color fields, so that the red field predominates instead of the blue. Islands, or geometric areas of anesthesia, not related to cutaneous nerve distribution. No suspected case of hysteria should be considered examined until the entire skin surface has been gone over by careful surface pricking, the patient being blindfolded. Repeated examinations at different hours, or different days, will show a transference in the location of these areas. Such findings are absolutely diagnostic.

A typical motor phenomenon is inability to do some act which requires no more power than demanded by some readily performed

automatic act, using the same muscles. The hysteric seizure is typical, no other nervous disorder presenting the same polymorphous, and anomalous elements. The rhythmical spasm is only found in hysteria. Urine of low specific gravity, not due to interstitial nephritis, is probably hysteric, and certainly is if the proportion of the alkaline and earthy phosphates are found inverted.

Another excellent point to remember which has recently been claimed by some authorities as being essentially hysteric, is the loss of the plantar reflex, with retention of the knee-jerk.

Paradoxes.—The following paradoxes are so striking as to appeal strongly to the student's love for the curious, as well as being truly helpful diagnostic points. Fingers so anesthetic as not to feel the deep prick of the needle will guide the pen or use the needle in sewing, even when not directed by the eye. Patients who claim positively that they cannot see with either eye alone when examined separately, see perfectly when both are used together. In cases of one-sided hysterical blindness, the patient subjectively sees nothing with the affected eye, and does not flinch from sudden or threatening movements, and with the seeing eye closed, runs into objects as she attempts to move about; yet those same eyes will see perfectly the stereoptician image, proving that neither the eye, nor the conducting paths of vision, nor the sight centers are involved, but that a persistent idea blinds her to all those optical experiences which she understands to be associated with seeing.

In the midst of an area of anesthesia may be a hypersensitive spot; surfaces exquisitely tender to the touch of the finger may not feel the prick of a pin. Regions which will not tolerate the weight of the hand will often bear deep pressure. In the paralyses and contractures, the electric and tendon responses and reflexes remain normal. Rigidity of a joint or limb may resist all efforts of relaxation while the patient is awake, nor relax during sleep, but under the influence of an anesthetic contractions of months standing will loosen up, and during the continuance of the anesthesia the joints may be placed in any position, only to return to the original deformity when consciousness is regained.

In ptosis due to paralysis of the levator palpebrae the eyelids are flaccid, and the eyebrows elevated, while in hysteric ptosis the eyelids offer resistance, while the eyebrows are depressed.

In that most interesting astasia abasia, where the patient cannot co-ordinate in standing and walking, he uses the same muscle groups perfectly while lying, sitting, and jumping. In fact, as Sydenham said long since, "No single features of these anomalies of character is more constant than their inconstancy." In diagnosis, however, we must be cautious to avoid the confusion of organic disease and associated hysteria, for when we find hysteric stigmata, we are prone to charge all co-existent symptoms to the account of this psychoneurosis. We must always bear in mind that a hysteric *may* suffer with something in addition to his hysteria, while *all* hysterics die of something else.

Prognosis.—In no disease does the prognosis, as regards life and recovery, present greater disparity. The hysteric state is only changed by the interposition of some new and permeating power. Subjective recovery, however, is very frequent. And as the patient considers himself well, such a modified recovery may properly be denominated cure.

Children are particularly good subjects, and while the mind is still plastic and impressionable no effort should be spared to restore them to the normal. The accidents disappear and reappear; one set may be overcome, only to be followed by an equally disturbing troop. Still, in time, they all disappear. In some cases the entire gamut is run.

Treatment.

Prophylaxis.—It is only when children are reared with the intelligence which our present civilization demands that hysteria will become less frequent. The daily life founded upon simple hygienic rules, the avoidance of all excesses by the neuropathic child, the careful protection of the imagination by the avoidance of ghost stories and the relating of uncanny scenes, with active, practical, unselfish living, filled with thoughtfulness for others, will most surely prevent the occurrence of this weakening and limiting malady.

The treatment of the hysteric accidents demands a stout heart, an active intellect, and a patient physician, for their name is legion and their form protean. An exhaustive and thorough examination is the first requisite. Anaemia, auto-intoxication, and all general disorders demand proper dietary and medicinal attention. Hydrotherapy, including the intelligent use of the packs and douches and the proper alternation of heat and cold, is often more satisfactory than medicine. Most certainly the routine use of bromides and chloral is to be deplored, while the hypodermic needle with its dose of morphine is but a Judas kiss.

For a simple convulsive attack, there is nothing more efficient than the dash of cold water; the more water, the more efficiency. Pressure on the hysterogenic zones will quiet some cases. The positive assurance

that these accidents are of no importance is helpful to the patient, as it takes away much of the seriousness of the situation. Early treatment by massage, electricity, and positive assurances of cure should be instituted in the paralyses and contractures.

Nothing is more helpful to the anesthesias and hyperesthesias than systematic Faradism and Static electricity. In cases of spinal irritation, the actual cautery or fly-blister may give relief. In severe cases isolation may be required. Laryngeal Faradism will usually relieve aphonia, while in laryngeal spasm, hysterical coughing and sneezing, sharp traction of the tongue, frequently repeated, will afford relief.

For hysteric dysphagia and vomiting, the systematic use of the stomach tube is efficient. In all hysteric convulsions, painful seizures, tremors, rhythmic spasms, or any disturbance of a paroxysmic nature, we have one ever satisfactory means, almost a specific. 1-15 to 1-10 grain of apomorphine hydrochlorate, hypodermically injected, will be followed within a few minutes by a relaxation so profound as to completely change the scene. In many instances this dose never has to be repeated.

Hysteric State.—The treatment of the hysteric state, which underlies all the manifestations which we have studied, is too often neglected by the general practitioner. Being a mental state, psychic treatment is essential, but by this is not meant inefficient and deceptive placeboes, but a treatment in which the physician himself has such confidence that he inspires the patient with his own conviction of success.

It is the self-confidence of the quack, or the fanatical belief of the Christian Scientist which secures his success. Expectation and novelty and a deep mental impression —all draw the patient's mind from that fixed idea which is the root of the evil.

Hypnotism has its advocates. It is often harmful and should only be used when less occult methods have failed.

To find and displace the fixed idea is the key-note of the treatment. This may be a simple matter, as all the patient's experiences and emotions revolve about it; still it may be subconscious, or a subject which the patient's modesty or shame forbids her disclosing. It is ofttimes a fear to which the patient hesitates to give a name. So it always demands careful, patient search.

Too often this idea is an underground current into which all the tributaries of the patient's nature are emptying, and this state is only successfully treated by means so radical as to impress every fiber of the character.

Sympathy of friends and relatives is a most harmful influence, their unwise attentions are often damning in their effects while their unselfish efforts but increase the difficulties to be overcome.

Complete isolation from all friends, all relatives, all acquaintances, in fact from all save physician and nurse, is the most rational treatment. The isolation cure or rest cure offers the greatest hope for recovery. Much depends in this treatment upon the physician in charge. Only one who is capable of getting to the bottom of the patient's mentality will succeed. Assisted by the nurse who has that sympathy which strengthens and who is incapable of that other form of sympathy which to the sentimental is beautiful but to the hysteric is weakening. Such treatment is at times practicable in the home, though in such surroundings it often fails. The help of a properly conducted sanitarium where rational hydrotherapy and the usual form of electricity, the intelligent physician, the tactful nurse, proper diet and an atmosphere of hopefulness and helpfulness may be found, is usually the simplest and most satisfactory solution of the question of treatment.

Finally, the old fixed idea must be discovered and uprooted, hope awakened, self-confidence installed, new ideas inculcated and a worthy aim in life inspired.

Arterio Venous Anastomosis, with Report of Case.*

By Gaston Torrance, M. D., Surgeon to St. Vincent's Hospital, Birmingham, Ala.

Carrel began his experimental work in France in 1902, but most of his work has been done in the Hull Physiological Laboratory of the University of Chicago. The first attempt to suture an artery to a vein was made by Berard and Carrel in the laboratory of Auguste Lumiere. The femoral artery and saphenous vein of a dog were divided in Scarpa's triangle and the central end of the artery was sutured to the peripheral end of the vein. The vein became distended with arterial blood, pulsated and exhibited the main characteristics of an artery; the dog died in two days from infection.

Carrel and Morel did some work in the laboratory of Prof. Soulier at the University of Lyons. The first dog operated upon made a good recovery, but eight days later the vessel was found to be occluded by a fibrous clot.

The next one was in every way successful. The external jugular vein and carotid artery were dissected up and divided. The distal end of the vein and proximal end of the artery were united. The arterial circulation was very active through the new

*Read before the Medical Association of the State of Alabama at Mobile, Ala., April 16-19, 1907.

vessel. Several weeks after the operation the animal was presented before the Societe de Medicine; the vein pulsated like an artery. A systolic murmur could be heard at the point of anastomosis. The dog was under observation for several months, and the results remained satisfactory.

In 1903 Exner experimented with Payr's method, introducing tubes of absorbable magnesium which had been successful in arterial suture, but caused thrombosis in all cases of arterio-venous anastomosis.

Hopfner attempted to unite an artery and vein, but was unsuccessful.

Payr thought the thrombosis was due to increased blood pressure.

About a year ago experiments were begun in the clinic of Prof. Garre, of Breslau, by Drs. Stich, Makkas and Dowman.

I was fortunate enough to examine a number of specimens in Prof. Garre's laboratory last winter while in Breslau, in which they had gotten excellent results.

The transplantation of veins consists in dissecting and cutting a vein and grafting it into some other point of the circulatory apparatus. This may be unitermal, as when one end of the vein is united to an artery, or another vein, or biterminal when the two ends of the venous segment are united to the cut ends of an artery or another vein, or an artery and a vein. A biterminal transplantation may be complete or incomplete; complete when the segment is dissected up throughout its whole course and then united to another vessel. Carrel has kept a segment of a vessel in cold storage for eighteen days, and then transplanted it successfully. In an incomplete transplantation the segment is not dissected up from its sheath except at the ends. When the segment is taken from the same animal it is called autoplastic, and homoplastic when taken from an animal of the same species; heteroplastic if from a different species.

The conditions necessary for the successful transplantation of a vessel are (1) a method by which the artery and vein can be smoothly united without hemorrhage, stenosis or thrombosis, and (2) a rigid asepsis.

On account of the difference in size, it is difficult to unite a vein to an artery, bringing the endothelium of the two vessels in accurate apposition without any puckering of the vein. Hemorrhage may occur between the folds and fibrin may be deposited in the pockets, producing an embolus. The needles must be small, and the thread the finest and strongest to be obtained.

The thread is sterilized in vaseline and is used while heavily coated. The vessels must be gently handled, and no dangerous metalic forceps used; the endothelium is protected from drying by using sterile vaseline.

In Garre's Clinic, they use Pearsall's 0000 silk, which is boiled in water and then kept in sterile liquid paraphine. It is said to keep well, and loses nothing in strength when reboiled. No chemicals are used in the operation, for fear of injuring the intima. The circulation is controlled by very light forceps designed by Hopfner, which are covered by rubber tubing and then wrapped in two thicknesses of a very fine mesh gauze.

Asepsis of an ordinary operation is probably not sufficient, as there is often some redness and hardness of the tissues, although there is no suppuration. When the asepsis is more rigid, the tissues are soft and show no adhesions to the underlying structures.

Technique.—A vein may be dissected up for its full length, and a close dissection may be made, as it is quite strong. It may be handled with the fingers with comparative roughness without producing sufficient injury to cause thrombosis. Great care must be exercised in controlling the circulation with mental clamps. They must be smooth, and if too strong will produce so much injury of the intima as to cause a deposit of fibrin and thrombosis formation. All branches of the vessel should be carefully ligated, and in complete biterminal transplantations the segment of vein should be reversed in order to overcome the valves. An artery may be united with a vein twice its size, as the vein, on account of its thin walls, is easily approximated, but it is a very much more difficult problem to unite a large artery and a small vein on account of its thick walls. When the vessels are near the same size the anastomosis becomes less difficult. When the artery is much larger than the vein, it is better to suture the vein into the side of the artery. This procedure is more difficult than an end to end anastomosis, but can be done successfully by suturing the vein into a triangular opening in the side of the artery and accurately approximating the endothelial layers of both vessels.

When a very small vein is to be transplanted, it is easier to make an anastomosis by dissecting the vein up to the point where it joins a larger vein, and removing a portion of the parent vessel around its mouth and using this in making the junction with the artery. Carrel has used this method successfully in a number of cases in transplanting the renal artery with the kidney in some other portion of the body.

Carrel has made a tube from the peritoneum and used it instead of a segment of a vessel for the anastomosis. Results were not good. Two weeks after a segment of

vein had been interposed between the cut ends of the carotid artery of a dog, it was found upon dissection that the segment had a fibrous sheath like the artery and appeared to be a dilated portion of the artery, and when incised longitudinally, it stood open like an artery. It was about the same thickness as the artery at the point of junction, but near the middle of the segment it was almost three times as thick as the artery. Microscopically, the fibrous layer of the middle and the inner fibrous layer of the outer coats were found to be enormously thickened.

Application to Surgery.—Carrel has succeeded in getting union and restoration of function in the leg of a dog in which the nerves, bone, muscles and vessels were united after the limb had been amputated for an hour and a half.

He also reports an instance in which an anastomosis was made between the carotid artery and inferior thyroid vein in an animal with symmetrical parenchymatous goitre which had pronounced general symptoms. Two weeks later the thyroid had decreased on the side operated upon, and seemed harder and more dense to the touch. The general symptoms improved steadily, as the gland decreased in size. Six and a half months after the operation the gland had decreased very much on both sides and had become much firmer. The unoperated side was still larger than normal. All general symptoms had disappeared, and except for the enlargement of the thyroid the animal was perfectly normal.

Microscopical examinations made from small sections of both glands showed the one operated upon to be much more normal in structure, and containing far more colloidal material. Carrel suggests that as Bier's congestion theory has proven to be so valuable in other conditions we may find it useful in the treatment of diseased organs.

San Martin Satrustegue in 1902 did an anastomosis between the femoral artery and vein in two patients with gangrene of the leg. In one case amputation was done at the same time, and there was no further spread of the gangrene. The other was a complete failure. Later Prof. Jaboulay established a lateral anastomosis of the femoral artery and vein on a patient suffering from gangrene produced by endarteritis. It was not a success, and amputation became necessary.

Recently Payr transplanted a piece of a mother's thyroid into the spleen of her six year old child suffering from typical infantile myxoedema. The child had been given a thorough course of treatment with thyroid extract lasting three and a half years, with no improvement.

Within five months after the operation the child had made great improvement, both mentally and physically.

When the implantation was done the copious bleeding from the spleen was controlled by the action of the thyroid tissues.

Dr. Joshia C. Hubbard's Case.

The patient, a man 80 years of age, was admitted to the Boston City Hospital in April, 1906, with dry gangrene of the right middle toe and edema of the foot. There was a loud systolic murmur. Lips blue. Radial arteries tortuous and a markedly sclerotic condition of all the other arteries. No pulsation felt in the dorsalis pedis. Urine negative.

The toe was kept dry, but the gangrene slowly progressed until the toe sloughed off and the other toes became involved.

About two weeks after admission, under ether an arterio-venous anastomosis was done in Scarpa's triangle. The femoral artery was freed from its sheath for about two and a half inches, and was found to be very sclerotic. The vein was dissected up for a corresponding distance. A Crile clamp was applied to the proximal end of the artery, and a piece of rubber tubing to the distal. A similar clamp was used on the distal end of the vein, and a rubber tube on the proximal. The vein was divided at a higher level than the artery. Three mattress sutures with needles on both ends were passed through the proximal end of the artery from within out at equal distances apart. The artery was then invaginated into the distal end of the vein by passing the needles into the lumen of the vein for ¼ inch, and then through to the outside and tying them. The circumference of the vein was sutured to the artery by interrupted stitches which did not include the whole thickness of the artery. Pagenstecher's celluloid thread No. 1 was used for all the sutures. The clamp was removed from the proximal end of the artery, and the rubber tubing from the distal portion of the vein. There was no leakage at the suture line. The vein partially filled immediately and pulsated slightly. By a similar process the distal end of the artery and proximal end of the vein were united, but as the vein was divided at a higher level there was some tension when the union was made. A small clot had formed in the artery, and was wiped out before the anastomosis was done. While manipulating the artery the tourniquet was pulled off and some blood was spilled, which was venous in character. When the clamp and tourniquet were finally removed, the vein became partially filled. The wound was closed in tiers, and a dry dressing put on. A spica bandage was applied, holding the thigh

flexed on the body. The patient was fastened to a Bradford frame, with pillows under the knees.

There was no immediate change in the appearance of the leg. It seemed to be as warm as the other, and there was no edema. There was never any pulsation in the superficial veins. The wound healed by first intention. The gangrene extended back to the tarso-metatarsal joint, where a line of dermarcation formed. The case was shown to the members of the American Medical Association. Hubbard thinks the gangrene would have extended more rapidly, and would have involved a greater area had not the arterio-venous anastomosis been done, and on this account claims that his operation was a success.

An amputation in the lower third of the leg was considered preferable to one through the foot, and this was done June 8th. No tourniquet was used. Both anterior and posterior tibials contained arterial blood and spurted with considerable force when divided. The veins did not appear to contain any arterial blood. The wound healed up slowly, and the patient was discharged August 6th.

The author makes no attempt to explain the findings at the time of amputation.

Dr. Howard Lilienthal's Case.

A man twenty years of age, a native of Russia, and a salesman by occupation, was admitted April 26, 1906.

His history was negative until his vascular trouble began several months prior to admission with pain and burning in the calves of the legs, which gradually increased until walking became impossible. Two months before admission a painful ulcer developed on the left great toe, the pain extending to the other toes, and finally to the whole leg and thigh up to the groin. Another ulcer appeared on the heel, with dusky red patches on the front of the ankle.

Physical examination negative. General condition quite good, in spite of a quite marked anaemia.

The ulcer of the toe was on the inner side of the distal phalanx, and was about the size of a thumb nail, edges slightly raised and partially undermined; the floor was covered with sloughy granulations, discharging a thin serous fluid. The ulcer on the heel was slightly larger, but of the same character, with its base black and gangrenous. The ulcers and their neighborhood were very painful and extremely tender to the slightest touch. The left dorsalis pedis and poplitreal vessels could not be felt. The right pulsated normally. The diagnosis of arterio sclerotic gangrene was made, and treatment by mouth of glonoinin and iodide of potassium and mercury by inunction was begun, hoping there might be a syphilitic element underlying it, of which there was no history. The disease continued to progress, the ulcers became larger, the foot dusky and the patches on the dorsum ulcerated. A few inflammatory glands could be felt in the groin. The patient's general condition became poor. On June 2nd, under gas and ether, an incision was made over the popliteral space with the view of making an anastomosis between the proximal end of the artery and the distal end of the vein, and ligating the other cut ends of the artery and vein. The artery was absolutely obliterated, even as high as it could be traced through a seven inch incision and the wound was closed and the operation abandoned. Four days later the operation was performed on the vessels in Scarpa's triangles. It was found that the artery pulsated only in its uppermost part. The circulation was controlled by a tape ligature clamped around the external iliac artery. A permanent ligature was applied to the vein at this point, and a temporary one thrown around the distal end. The artery was severed one centimeter velow, and the vein the same distance above the point selected for anastomosis. The stumps of both vessels were emptied of residual blood and filled with sterile vaseline. The ends of the vessels were brought together by three "anchor" sutures equidistant apart, and left long, so that when put on the stretch the lumen of the vessels formed an equilateral triangle. A continuous suture was used and was tied at each angle of the triangle, the "anchor" sutures being used as retractors. The suture passed through all coats of both vessels, bringing the intimas together and turning the seam outward. No. 12 Milliner's needle and 000 silk used, boiled in vaseline. Just before the last suture was tied, the vessels were emptied of the vaseline by gentle manipulation. When this suture was tied the tapes were removed and the current established from artery to vein without any leakage. Pulsations were visible in the femoral vein and could, with some difficulty, be felt in the external saphenous. No pulsation was noted in any of the veins of the foot, but the ulcers, which were markedly cyanotic and did not bleed bright blood at the beginning of the operation, began to exude. In ten minutes the foot appeared to have recovered somewhat from the intense cyanosis incident to ligation of the femoral artery, but never approached the normal in color. The patient was very much shocked. The following morning there was a line of demarcation crossing the dorsum of the foot, and extending up posteriorly across the leg just below the middle of the calf. The

patient died 31 hours after operation.

No postmortem was allowed except the removal of the anastomosed portion of the vessels. There was a very soft clot in the vein, possibly formed just before death. No hemorrhage or bulging of the vessels at the point of suture.

Author's Case.

On July 19th, 1906, the patient, a man forty years of age, while working in a pipe foundry had both legs crushed by two ten inch core bars, weighing about 900 pounds, falling on him. There was a simple fracture of the left leg, and a compound fracture of the right ankle. When first examined the injury of the ankle did not seem so serious, and I promised him I would not amputate his foot. When examined under ether, the bones of the ankle and lower end of the leg resembled ice when broken in a towel; the anterior tibial artery was found to be severed, and the tissues around the joint were so badly lacerated that it was questionable whether the posterior was intact or not. There was considerable shock, and it would have been almost impossible to detect any pulsation in either of the vessels. I found the long saphenous vein was cut also, and decided to unite the proximal end of the artery with distal portion of the vein. Blood was flowing from both vessels, and I secured them temporarily with lightly tied silk ligatures until I could finish resecting the ankle.

When ready to unite the vessels, I resected the artery above and the vein below the ligature in order to get rid of this bruised part of the vessels. Two small silk sutures were passed through the whole thickness of the artery on opposite sides and then down into the lumen of the vein for about a quarter of an inch, and then out through the wall of the vein, and when drawn tight and tied, invaginated the artery into the vein. The end of the vein was sutured to the artery by a continuous silk suture.

No clamps were needed to control the circulation on account of the weak condition of the heart's action. The blood was still flowing from both vessels when the artery was invaginated, but no distinct pulsation could be detected. There was no leakage after the circular suture was introduced.

The wound was packed with gauze and the sutured vessel covered with a flap of flesh which could be raised up for inspection of the vessel. The foot was put under a constant drip of carbolic acid solution ½ per cent. and kept warm with a hot water bag. The following day the foot was warm and normal in appearance; the circulation seemed as good as in the other foot. Motion and sensation normal. About half an inch of the vessel could be seen a short distance above the suture line, and slight pulsations could be felt; it seemed to be fully distended. The artery was intact on the eleventh day after the operation and bled some from the outer coats when sponged. No distinct pulsations could be felt, but it seemed to be in a healthy condition and was thought to be carrying a small current of blood. The walls of the artery were firm and tense, and a clot was in all probability forming, which in the course of the next few days completely filled the lumen of the vessel and caused it to slough, owing to its exposed condition. I did not attempt to examine it again for several days, and when I did so I found only a sloughing cord, which I recognized as the vessels, but its condition was such that it was worthless as a specimen.

I think the vein probably supplied blood to the foot for two weeks until a new collateral circulation was established, which grew stronger as the fibrin was thrown down in the vessel, constantly narrowing its lumen.

About four months later the bones showed a somewhat diseased condition, and the patient insisted upon having the foot amputated. Unfortunately, this was done while I was in Europe, and nothing was found out as to how the circulation of the foot was carried on.

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The Hypodermic Administration of Mercury in Severe Syphilitic Manifestations, with Case Reports.

By H. R. Shands, B. A., M. D., Jackson, Miss.

The object of this article is not to attempt to bring out anything new in the therapeutics of syphilis, but rather to direct our attention to a comparatively old form of treatment, which is at all times extremely efficient and sometimes very surprising in its beneficial results.

That this method of treatment is often neglected, I have good reason to know. On more than one occasion I have known patients to leave our State, accompanied by a good physician and a correct diagnosis of syphilis, for a consultation with one of the greater "Lights" in some of our nearby cities. If the lesion is severe enough to cause the physician to want a consultation, it is severe enough to demand heroic treatment. So the physician is instructed as to the efficacy of the hypodermic administration of mercury, and this form of treatment instituted. Incidentally the patient returns with a lessened respect for his physician in that he did not resort to this simple form of treatment on his own initiative.

A vast amount of literature has been collected upon the subject of the hypodermic administration of mercury. Here, as is very often the case, the pendulum has at times swung too far. The enthusiastic advocate, so much impressed by the rapid and certain results obtained has advised this method to the exclusion of all other forms of treatment. Often in their zeal for results, they have forgotten the patient and his woes.

That this method should be used exclusively, I believe no one now contends, although formerly many noted syphilographers expressed themselves to the effect that this should be the routine method of treatment. Many and various claims are brought forward in its behalf; some of these claims have not been proven to be valid in the judgment of increased experience. Perhaps the most convincing argument brought forward in support of this method as a routine was, that by its use a case of syphilis could be aborted; or at any rate cured in a very short time,—two or three months. This is no longer maintained. We all now recognize syphilis as a more or less self limited disease, running a minimal average course of two years, with good treatment, before a cure is accomplished. The one item of pain alone is enough to cause this form of treatment to become very unpopular, at least with the patient, as a routine method.

However, there are certain very definite indications for its use. These I shall attempt briefly to bring out.

1st. Where any lesion persistently refuses to heal under the ordinary method of administration. We all recognize that we have a specific form of treatment for syphilis: However, we all at times have syphilitic manifestations which refuse to respond to the usual method of administration of our specifics. Occasionally a chancre will persist almost indefinitely, and so with many other lesions. I recall a case which illustrates this point very definitely.

During my service in the Charity Hospital, we had a negro woman who had been coming to the gynecological clinic for two years, being treated for a large ulcer which had destroyed part of the labia minora and vaginal inlet. There was great hypertrophy of the tissues around the edges of the ulcer. The base of the ulcer was covered with a grayish necrotic detritus without any tendency to the formation of healthy granulations. The diagnosis had not been clearly established between a late syphilitic ulcer and lupus vulgaris. The patient, however, gave a clear history of a severe syphilitic infection eight or ten years previously. She had been coming to the clinic once or twice a week for about two years, and had been given large doses of the iodids and also mercury by mouth almost continuously. All manner of local treatment had been resorted to. None of these measures seemed to help her. Finally we gave her one-sixth to one-fourth of a grain of bichloride by needle once daily. After a week the improvement was noticeable, and in a month, when I left this service, she was well on the road to recovery.

2nd. When a severe lesion threatens any vital part. We occasionally see cases in which the anti-syphilitic treatment has been neglected so long that there is imminent danger that the lesion may cause the destruction of some important organ and even threaten the life of the patient. Under these circumstances we naturally look for the most rapid form of treatment. The results of the use of mercury hypodermically may truly be said to be life saving under these circumstances. The following case is in point:

H. W.; colored; male; first seen Jan. 1, 1907. The patient came complaining of a sore throat, for which he had been treated at various times with no improvement. On inspecting his throat a large ulcerating mass was seen involving the soft palate, both pillars of the fauces and the post-pharyngeal wall. The uvula was entirely destroyed. He swallowed with the greatest difficulty, and only liquids. He could scarcely speak above a whisper. The thickening and induration about the ulcer and the glandular

involvement in the neck were so great as to at first suggest a carcinoma. He had been infected with syphilis fifteen or twenty years previously. This condition was decided to be due to an ulcerating gumma and the hypodermic treatment instituted. In sixteen days the transformation was really marvelous. The thickening had disappeared, the ulcerated places had healed and the patient was discharged with instructions to return every two weeks for observation, the anti-syphilitic treatment being continued per oram. The patient went away with a cleft and adherent soft palate, but with a good functional result and was in no more immediate danger.

3rd. When for the safety of others it is necessary to rapidly get the patient under the influence of the treatment.

This as an indication will not frequently arise, but it often happens that the patient wants to get rid of any eruption in the most rapid manner possible to avoid detection.

I treated one prostitute for secondary syphilis who refused to abstain from intercourse. She was treated hypodermically to try to get her to a non-infectious state as soon as possible. This occasion for its use will also arise when a married man contracts syphilis, and when patients have severe lesions about the mouth.

4th. In very painful lesion.

This applies to any lesion which causes the patient much pain. Under this heading, I have used it mostly for syphilitic iritis. An attack of iritis can be cured as a rule in from three to six days. In my experience with any other method of administration of mercury, it will take at least two weeks. The following case illustrates this perfectly:

X; white male; admitted to Charity Hospital in the winter of 1903. At the time of admission he was suffering with an acute gonorrhoeal arthritis and a macular syphilitic eruption. The patient remained in the ward two months and during that time suffered with three distinct attacks of syphilitic iritis; notwithstanding the fact that he was taking vigorous anti-syphilitic treatment by mouth all the time. When the third attack of iritis developed he was taking one-sixteenth grain bichloride and 10 grains of iodid by mouth every four hours day and night. Each time the iritis cleared up entirely in four days on one-sixth grain bichlhoride by needle daily. Of course the treatment by mouth was discontinued while the hypodermic treatment was in progress.

5th. In establishing a differential diagnosis.

This is probably the greatest indication for the use of the hypodermic method. The most skilled of us will occasionally make mistakes. If you can in ten days time positively exclude syphilis as the cause of a tumor or ulceration, it is a very comforting thing to do. This was formerly Dr. Matas' usual rule when there was the least shadow of a doubt in the diagnosis, whether or not a history of syphilis could be obtained. If the process proved to be malignant or tuberculous he had only lost a week or ten days in attacking it.

The patients' skin and digestive organs remain unaffected except in rare instances, and stomatitis is of very unusual occurrence when the mercury is given hypodermically. If the patient's stomach is in such a condition that he cannot take the medicine by mouth, and he has an eruption which interferes with the use of inunctions, this will probably be found to be the most convenient and satisfactory form of treatment.

The hypodermic medication seems to be especially good in any form of cerebral or nervous syphilis. Below are given two illustrative cases.

1. White female; admitted to ward 51, Charity Hospital, in the summer of 1904. On first inspection the patient appeared demented. She was suffering violently with her head, and stated that she could scarcely sleep at all for the pain. A slight general adenopathy and the nocturnal character of the head pain suggested a cerebral syphilis, although she denied a syphilitic infection. She had, however, suffered with an otitis media purelenta within the past year. The diagnosis at first could not be established between cerebral syphilis and an inflammatory tumor from a possible necrosis of the temporal bones. She stated that she had sustained fourteen general convulsions with no localizing symptoms, and that her pain was very intense. In fact, she had actually pulled out a good deal of her hair in her agony. On a sixth to a fourth of a grain of bichloride her pain ceased within one week. She left the hospital in two weeks entirely free of symptoms. She was instructed to keep up the anti-syphilitic treatment by mouth.

2. Colored male; 27 years of age; seen in December, 1906. The patient's father first consulted us concerning his son, who lives six miles in the country. He stated that his son suffered with such violent headaches that he kept the entire family awake at night with his groans. The suffering he attribured to an old blood trouble. He was given a prescription for a tenth of a grain of bichloride and 15 drops of iodid to be taken three times daily. He returned after four or five days, stating that his son was no better. The dose of iodid was doubled and continued for a few days. When he returned and again reported no improvement

We then made him bring the patient to town, so that we could examine him and if necessary give him hypodermic treatment. When seen the patient's gait and general weakness suggested the early paralytic stage of paresis; he could scarcely walk for the weakness of his legs. His reflexes were all exaggerated. His right eye bulged from his head to a very noticeable degree—really a condition of exophthalmos. The right pupil was widely dilated and did not react to light. His mental condition was so befuddled that he appeared almost idiotic. He was given a hypodermic of mercury; this caused him intense pain, so much that he rolled on the floor and cried out in his suffering. This brought out the fact that he was suffering with a general hyperaesthesia. He was, however, given one hypodermic daily for four days. This caused a great moderation in his headache, and as the hypodermics caused him so much pain he was put back on the treatment by mouth. His improvement continued steadily. When seen again, early in March, all of his symptoms had disappeared with the exception of the dilated pupil, and this was much better, He had then been at work six weeks.

In my experience the soluble salts of mercury are much better than the insoluble. I have never had but one bad result, and that was with the salicylate of mercury 2½ grains suspended in oil. This caused great pain and the patient passed bloody stools for two days; since then I have never used this preparation. I believe there is no better salt to use than the simple bichloride. When used in the strength of one grain to one dram of sterile water 10 m. equals ⅙ grain bichloride, 15 m. equals ¼. This is the usual dose given once daily.

The injection is best given deep into the gluteal muscles; using first one side, then the other.

Any hypodermic syringe which can be thoroughly sterilized, preferably by boiling, will do. The same aseptic precautions are used that should be used with any other hypodermic injection.

In four years experience I have never seen an abscess follow a hypodermic of mercury. Very often small painful nodosities will be left for some time, and in one case I have seen a severe cellulitis develop.

The pain is the greatest draw back associated with the injection. The amount of pain varies greatly in different patients. Some seem to suffer very little inconvenience and keep right ahead with their work; in others it seems to cause very considerable pain for several hours following the injection. It is sometimes best to keep the patient confined to his bed while he is taking the injection. This diminishes the amount of muscular soreness and stiffness. I have found no reliable agent to greatly diminish the pain. An ice cap or hot water bottle sometimes helps. The pain, however, is not to be very seriously considered, for the patient is willing to stand this when he is suffering with a syphilitic manifestation severe enough to call for hypodermic medication. Not more than eight or ten injections will be necessary anyhow.

One has only to use mercury in this way to realize its great potency. In properly selected cases, it will prove an exceedingly satisfactory form of treatment.

Trachoma.

By Dr. Louis Edelman, Mobile, Alabama.

Trachoma was not frequent in Europe until the Egyptian campaign of Napoleon. In July, 1798, Napoleon landed in Egypt with an army of thirty-two thousand men, nearly all of whom were soon attacked by a violent ophthalmia, and these soldiers conveyed the disease with them when they returned to Europe, where it spread very rapidly.

In the English Army in 1818 over five thousand of the soldiers were on the invalid list on account of trachoma; in the Prussian Army, from 1813 to 1817, between twenty and thirty thousand suffered from trachoma; in the Russian Army, from 1816 to 1839, seventy-six thousand, eight hundred and eleven were subjected to the terrible disease; in 1840 one out of every five in the Belgium Army had trachoma; in the work-house of Dublin no less than 134,838 were attacked by trachoma between the years of 1849 and 1854, and in all the large public institutions and congested districts of Europe the disease often suddenly appears now and infects entire communities. While I was in Bruun, Austria, last year, I heard of an entire settlement, consisting of more than eight hundred persons, stricken with trachoma.

It is not the aim of this article to present either an accurate diagnosis or a cure of trachoma; but rather to direct public attention to a very real and menacing danger, and to show the necessity for devising the best means whereby the spread of this terrible disease in our country may be prevented.

Upon my arrival in Bremen I went to the North German Lloyd's Company's Emigration Station, where they examine all emigrants before allowing them to take passage to the United States. There I found three German physicians, who examined about eighteen hundred emigrants in a few hours. If it was discovered that a member of a family had trachoma, he only was denied passage, but, although the diseased member had traveled with the others of the family,

and had been in closest association with them long previously to the journey, the others were all permitted to sail. It was alarming to see such carelessness shown, on the part of the Steamship Company, in regard to sending to our shores such a terrible disease as trachoma.

Upon my arrival at Brunn, to which post I was appointed by the State Department as United States agent, I called on Dr. Plenk, who is at the head of the Eye Department in St. Anna's Hospital in that city, and through his influence and kindness all of the trachoma cases were turned over to me under the first assistant supervisor.

In the daily clinics we had from fifty to a hundred cases every day, and in the hospital the average was about sixty. My investigations were undertaken along such lines as would enable me to recommend to our Government the best methods to adopt to prevent trachoma from spreading in our country, and with this object in view I made a careful record of the history of each case.

In nine months I have examined more than a thousand cases and from the history and treatment of these I arrived at the following conclusions:

First, that trachoma is very contagious.

Second, that only in rare cases can a permanent cure be established.

Third, that in seventy per cent. of the cases the vision is impaired.

Fourth, that when trachoma has once attacked it will return at intervals of a month, or year, and in some cases it will return after three years.

Fifth, that if one member of a family is attacked, the entire family will be attacked sooner or later.

Sixth, that the geographical center in which trachoma is most found is in the region of the lower Danube, Galicia and Poland.

In 1904, fifteen hundred and sixty (1560) emigrants were ordered to be deported on account of contagious diseases. This is proof conclusive that fifteen hundred and sixty (1560) human beings were brought to this country through the negligence of our officials who serve at the ports in Europe, and the same returned. Think of the sufferings of those fifteen hundred and sixty (1560) emigrants, who had sold everything they had possessed to enable them to reach the "Golden Land," only to be returned to their lands empty handed! Here I must quote from Mr. Sargent's annual report on immigration: "Those aliens who were rejected because they were afflicted with a dangerous or loathsome contagious disease aggregate 1560, a slight diminution from the corresponding figures for the previous year, but, still indicating on the part of the steamship lines a willful disregard of the law, which adds weight to the considerations herein repeated from the last report, that the physical examination of aliens be conducted abroad at the ports of embarkation by officers of the United States Public Health and Marine Hospital Service."

In another part of his report Mr. Sargent says: "As intimated last year, one of the chief of these contagious diseases, trachoma, is of Oriental origin, and accordingly, upon application to Dr. Walter Wyman, the Surgeon General of the United States Public Health and Marine Hospital Service, orders were issued Aug. 21, 1903, to his officers serving at the principal Eastern ports to examine aliens embarking from such ports to the United States. As a result of these orders there have been rejected at the port of Yokohoma, Japan, since Sept. 22, 1903, out of 9,538 examined, 629, and at the port of Nagasaki, Japan, 656 were rejected during the same period, all afflicted with trachoma, except one, who had favus, a disease of the scalp."

"These facts, it is admitted, abundantly justify the recommendation made elsewhere in this report, as also in the last Annual Report, that Congress authorize the physical examination of aliens to be made at the principal foreign ports of embarkation."

I must state that the American Consuls who serve at the ports where emigrants embark for the United States are men of ability, but none of them are able to diagnose disease, and especially trachoma, which is most deceiving, and takes an expert to differentiate between trachoma and other inflammation of the conjunctiva. A great many emigrants will be allowed to embark for the United States, whom to the layman appears like sore eyes, and yet before the emigrant reaches his destination it develops a strong case of trachoma; and one emigrant in mixing with the other passengers will transmit the disease. When the emigrant lands, according to our laws, the innocent ones as well as the guilty are deported.

It is beyond my power to describe the suffering and the wretched condition of the emigrants that are returned to their homes. They have sold everything with the only hope to get to the "Land of the Free," and when they reach here they are not allowed to land.

The steamer Neckar, which sailed from Baltimore June 22, 1904, had among her third-class passengers several cases of trachoma, which had been ordered by the immigration authorities to be deported. I questioned the patients, all of them assured me, as did the ship's physician, that they

were perfectly well when they embarked at Bremen for the United States. Trachoma had developed on board the ship. After making a thorough examination of all the cases I found in one young Russian that the papillae were of large size, raspberry like, and the conjunctiva hypertrophic. This alone was sufficient evidence that he had trachoma when he embarked at Bremen for the United States. Through the negligence of an examining officer at Bremen this young man lost his money which he had spent for his passage; had to cross the Atlantic twice and infect several of his fellow passengers.

When we realize that seventy per cent. of the total, and partial, blindness in Germany, and eighty-two per cent. in Austria, is the result of trachoma we cannot be too careful of the future in this country.

My suggestions are as follows:

First, that at the port from which aliens embark for the United States men should be appointed from the medical profession whose duty it should be to examine every emigrant whose destination is the United States.

Second, that an emigrant who has once been attacked by trachoma, even though seemingly cured, should not be admitted to the United States.

Third, that the entire family of a person once attacked by trachoma should be excluded.

This would do away with the danger of contagion, which must come to us sooner or later, and with the great hardship to aliens of being deported after arriving in this country.

After a thorough examination of several of the ports in Europe, I must agree with Mr. Sargent, that the examination of emigrants to this country must be made at the ports of embarkation, not by foreign doctors and foreign consuls, but by American doctors and American consuls.

I say we want all the oppressed to come here, but we want them to be healthy and honest; we do not want the criminals, the shiftless and afflicted classes. We must regulate our laws that when an emigrant is given a clean bill of health at the port of embarkation that should be sufficient evidence to qualify him to be admitted to our shores.

The time has come when the people of the United States should assert their rights and dictate that only healthy men and women should be brought to this country.

More About the Mosquito and Malaria

Dr. H. C. Buck,

Friars Point, Miss.,

Dear Doctor:—

I have read your interesting article in the Charlotte Medical Journal. I like to read after men who think for themselves, because it is from the Creator we obtain information.

The retailer of second-hand information only litters up our badly over-loaded literature. This, my dear doctor, has no personal application; we all have to quote authors to support our position. Now, Mannaberg wrote numberless articles and two large text-books on ground of literature and his own 142 cases! Grawitz's article in *Modern Clinical Medicine* shows all through that he is absolutely unfamiliar with the disease, though it is an extremely well-digested article and in the main reliable. Yet he tells us malaria is endemic in the Rockies and absent in the hill counties of Mississippi! All authorities except Grawitz agree with the statistics of the Memphis hospitals that malarial fevers are most prevalent in August and September. But—the garrisons of North Germany are peopled with soldiers returned on sick leave from Cameroons, at the *antipodes*.

Another thing. The mosquito does not make the malaria organism; it only completes its life cycle which has begun in the human individual who had it first; hence the less mosquitoes, the more intense the infection, because every bite means a new case; if only one mosquito in 100 is infected only one bite in 100 can convey it.

Unfortunately we cannot change the name "malaria"; on the whole it is not quite incorrect if we call bad air that which contains infected mosquitoes. The name *plasmodium* is quite as inappropriate; yet, we have to endure it according to law of priority. But the men in the British Tropical Commission drank swamp water, condensed dew and breathed the air of the Pontine marshes, the most deadly in all Italy (but behind screens) for an entire season, whilst those exposed had malignant malaria. Here it must be assumed that some swamp-inhabiting warm blooded mammal can take man's part in the cycle. With us, absolutely nothing else counts; there is a little proof that dogs can harbor it in its latent form, yet Koch eradicated an endemic by only giving quinine to persons found to have infection; this deprived mosquitoes of the means of getting infected. In the human body the malarial organism can only live in the blood and blood organs; hence any mode of introduction outside of the hypodermic one is out of the question.

There is only one way to find mosquitoes in a house: Paste up all cracks, open all drawers, trunks, etc., and burn several pounds of sulphur in the room; where no mosquitoes existed, they will be found by the dozen dead. I know this, Doctor, because I have demonstrated it repeatedly.

But the malaria mosquito is a "tramp," and you may never find it but it will find *you*. This is no "booklarnin'."

There are many things some doctors in the malaria belt do not know, for instance:

1. The malarial organism can infect a mosquito only when it has reached the undifferentiable bi-sexual stage of the long cycle, which is man's end-stage, hence "chronic" and latent cases are the most dangerous to the community.

2. The mosquito cannot infect an individual until 7 to 12 days after having bitten a patient having the infection at the right stage; the period of incubation after the bite may be three weeks; it is shortened by such accidents as were formerly believed to be the causative agents, hence the belief.

3. The fever stage is the wrong one for finding the organism unless you puncture the spleen, which is very dangerous.

4. In cachexia we may find the organisms only with the greatest difficulty or not at all, even in spleen blood.

5, There *is* a leucocytosis in malaria, marked in grave infections and in intermittents most pronounced before the chill.

6. The decline of the leucocytosis is intimately associated with the removal of the organisms from the peripheral circulation.

7. During the pre-hemoglobinuric stage quinine is positively hemolytic; this may persist throughout the hemoglobinuria, and if marked continuance of the treatment will surely kill the patient; vide Brem's article, case 3 (Journal A. M. A., Vol. XLVII, p. 1897).

Yours truly,

WILLIAM KRAUSS.

P. S. I would be pleased if you would give this to the journal which published your paper.

Yours truly,

WILLIAM KRAUSS.

Report of a Case of Reflex Bronchial Asthma Caused by the Presence of Nasal Polypi.*

By C. M. Sandusky, M. D., Tampa, Florida.

Last summer a gentleman was referred to me by Dr. Bowen, of this city, for examination of his nose and throat. Patient was about 35 years af age, of good family history and habits. Said he had been a severe sufferer from asthma for the past four or five years, and had moved here from Buffalo, N. Y., about a year previous, thinking to benefit his health. He was a confirmed mouth breather. Examination showed the inferior turbinates on either side so greatly hypertrophied as to completely block both nostrils. It was necessary to use cocaine and adrenalin before the examination could proceed. When the tissue became contracted polypi were visible on either side, also a good sized septal spur on the right.

At this and subsequent sittings I removed 19 polyps, ranging from the size of a marble to that of a pea. Both inferior turbinates were cauterized and the spur removed from septum. After this I saw him from time to time and he reported himself entirely free from asthma and able to breathe fully through both nostrils at all times. In December he came back for further treatment, saying the asthma had returned worse than ever. At this sitting I removed three good sized polyps, making in all 22.

At the present writing he is free from asthma entirely, and has had no suggestion of it since December. I omitted to state that after the removal of the first 19 polyps there developed a most distressing reflex cough which was due to an elongated uvula. Removal of the excess portion of this structure resulted in an immediate cessation of the cough. After this he began to suffer from severe facial neuralgia on the left side. A single application of the galvanic cautery to the middle turbinate promptly ended this.

This most interesting and complex case presented three separate and distinct reflexes which developed one after another. First the asthma, next the cough, and then the one-sided tri-facial neuralgia. Another interesting feature was the violent return of the asthmatic symptoms upon the development of the last three polypi. From the length of time that has elapsed I think the case may be regarded as fairly cured.

*Read at the meeting of the Florida Medical Association at Tampa, Florida, April 16, 17, 18.

Gastric Immotility.

A large proportion of all cases of indigestion are the result of weakness of the muscular walls of the stomach. Insufficient motility is followed by dilatation and this by excessive fermentation of the ingested food.

To overcome the presenting condition it is urgently necessary to increase the muscular activity of the stomach walls, and it is well known that this is one of the most valuable properties of Gray's Glycerine Tonic Comp.

Increased activity of the muscles of the stomach means improved circulation, and this in turn exerts a beneficial influence on the secretory functions. Thus, excessive fermentation and other distressing symptoms are logically overcome with actual instead of temporary improvement in the whole physical condition.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

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PENNSYLVANIA OSTEOPATHIC BILL VETOED.

The misguided enthusiasts, who are responsible for the osteopathic propaganda, which is so industriously following up each session of every State legislature throughout the Union and presenting its "stock bill" with the appearance among the members of the legislative body of sundry supporters armed with most formidable arguments very favorable, of course, to "the new school of medicine," received quite a set back recently in the State of Pennsylvania.

It seems the osteopathic paraphernalia was deployed in all its beauty and glory before the gaze of the assembled solons at Harrisburg (just as it was so successfully last winter at Raleigh, N. C.,) the same old "stock bill" (the one that is handed around for use in all sections of the country where a legislative body sufficiently ignorant can be found to enact it) was brought forth, the adherents of "the new school of medicine" paraded their wonderful cures and exhibited their "cured patients who came from a distance at great personal expense and inconvenience to testify" (just as they did at Raleigh, N. C., in 1904, when an alert medical organization readily secured their defeat!) and the result was that despite the efforts of the medical profession to prevent such enactment, the "stock bill" was actually passed by both houses of the legislature at the Pennsylvania capitol.

The bill then went to the Governor, who in Pennsylvania wisely has a veto power over legislation, and here the State Medical Society made a successful presentation of the foolishness of such legislation, so that after a hearing to all interested parties Gov. Stuart wisely vetoed the measure. Accompanying his veto was a message dealing with the proposition in which he used the following words of wisdom:

"That the skillful practice of osteopathy has benefited the afflicted, and alleviated human suffering in many instances is an established fact. It can, however, be practiced without violating the present medical practice act. No legislation is therefore necessary to permit osteopaths to practice their profession, but there is a broad and clearly defined distinction between practicing medicine and surgery and practicing osteopathy. The State is not concerned with any controversy between the different schools or sects and those who practice the art of healing, but it is interested in protecting the public from incompetent practitioners of every sort. Whether classifying osteopaths, who are not physicians or surgeons, in legislation originally designed to be applicable only to physicians and surgeons would afford any protection to the public is considered doubtful."

Would that North Carolina had had a few years since as clear-headed a Chief Justice as Pennsylvania has a Governor!

LAWS OF SPECIAL INTEREST TO THE MEDICAL PROFESSION ENACTED BY THE LEGISLATURE OF N. C., JANUARY–MARCH, 1907.

Knowing the watchful eye the profession at large keep on the doings of the legislature, and the keen interest felt by medical men at all times in the modifications or amendments made to legislation in which the profession is concerned we give below the captions of the various acts passed by the legislature of North Carolina recently adjourned:

H. B. 203, S. B. 209—An act to provide against the evils resulting from the traffic in certain narcotic drugs, and to regulate the sale thereof.

Sale of cocaine, alpha or beta eucaine, opium, morphine, heroin, or any salt or compound of same, forbidden except on prescription. Prescription to be filed and not duplicated. Physicians giving false prescription liable criminally. Judges to charge grand jury specially. Board of Pharmacy to prosecute. Patent medicines not affected until condemned by Board of Pharmacy.

H. B. 421, S. B. 403—An act to improve the efficiency of the James Walker Memorial Hospital of Wilmington, North Carolina.

New Hanover county and city of Wilmington authorized to contribute to support of hospital.

H. B. 15, S. B. 728—An act to provide for the care of the mental defectives of the State.

State Hospital Commission of five members to be appointed by Governor and $125,000 per year for four years appropriated for preparing accommodations for caring for all mentally defective citizens.

H. B. 1039, S. B. 371—An act to prevent the manufacture or sale of adulterated, misbranded, poisonous, or deleterious foods, drugs, medicines or liquors.

This is a long and very important act. It is expressed almost entirely in technical terms. Any synopsis of it would be unsatisfactory and could easily be misleading. It will be printed for distribution by the

Department of Agriculture.

H. B. 1339, S. B. 314—An act to prevent the spread of infectious and contagious diseases in Robeson county.

Houses to be disinfected. Directions sent out. Notice to be given of suspected sources of water supply.

H. B. 1229, S. B. 1155—An act to amend chapter one, Private Laws of one thousand nine hundred and five, entitled "An act repealing chapter eighty-four of the Private Laws of one thousand eight hundred and ninety-seven, entitled 'An act to incorporate the Auxiliary Board of Health of Edgecombe County.'"

Contribution to Pitman Hospital increased to $1,000.

H. B. 1206, S. B. 543—An act to define the status of dentistry in its relation to the practice of medicine and surgery.

Dentist defined as a surgeon, limiting practice to diseases of the teeth and adjacent parts. Second and subsequent offenses of practicing illegally punished in the discretion of the Court.

H. B. 571, S. B. 345—An act to amend section three thousand and fifty-two of the Revisal of one thousand nine hundred and five, in relation to water supplies.

Towns without sewerage, situated on watersheds, to clean up at least once a week.

H. B. 1771, S. B. 1359—An act for the relief of C. L. Cook of the county of Wilkes.

Allowed to practice medicine without license.

H. B. 1613, S. B. 1564—An act to allow Dr. Dowd to practice medicine without paying tax in Randolph county.

Title explains act.

H. B. 2073, S. B. 1395—An act for the relief of certain physicians in Chatham county.

Persons practicing before one thousand eight hundred and ninety-nine, and having attended medical college one term since, to be examined by State Board and licensed if examination satisfactory.

H. B. 650, S. B. 1228—An act to regulate the practice of system, method, or science of treating diseases, known as osteopathy, and creating a Board of Examination and Registration for the regulation of the same, and providing for the violation of this act.

State Board of Examination and Registration to be appointed by the Governor from a list of not less than ten nor more than fifteen recommended by the North Carolina Society of Osteopaths.

H. B. 1000, S. B. 1070—An act for the relief of certain physicians of Cherokee, Clay, and Graham counties.

Persons practicing medicine under diploma from reputable medical college allowed until first of May, one thousand nine hundred and nine, to obtain license from Medical Society.

H. B. 531, S. B. 1572—An act to furnish and maintain a Woman's Annex to the State Hospital, Raleigh, North Carolina.

Appropriation of $22,638.62 to pay debt incurred.

H. B. 1883, S. B. 1747—An act to authorize Dr. T. C. Hensley to practice medicine in Number Two Township in Madison county.

Regularly licensed physician and surgeon of Tennessee.

H. B. 1060, S. B. 1933—An act authorizing the State Board of Health to provide for the preventive treatment of hydrophobia.

Treatment free to persons unable to pay. Fees for treatment of others. Appropriation to Laboratory of Hygiene may be drawn on, but not to such an extent as to impair its usefulness.

H. B. 961, S. B. 1928—An act to amend section four thousand four hundred and five, by adding a sub-section marked (a) thereto, for enlarging the powers of the Board of Medical Examiners in granting a license to applicants to practice medicine.

License may be issued without examination on diploma from recognized Medical College and license from another State.

H. B. 1982, S. B. 1940—An act to regulate the writing of prescriptions by physicians.

Physicians not to prescribe liquor to any except *bona fide* patients in need of same. Upon indictments proof that patient was going about and that physician had not previously prescribed for him *prima facie* evidence of lack of need for liquor. Number of prescriptions by physician to be shown on question of good faith. Applies only to Mecklenburg county.

H. B. 1474, S. B. 1978—An act to establish a sanatorium for the treatment of tuberculosis.

Appropriation of $15,000 for establishment. Twelve directors to be elected by General Assembly. Annual appropriation of $5,000 for support.

OSTEOPATHIC BILL DEFEATED IN THE ILLINOIS LEGISLATURE.

We congratulate the medical profession of the great State of Illinois upon the recent defeat of the "standard" osteopathic bill before the State legislature. A very determined effort was made by the national osteopathic lobby to foist their regular standard or "stock bill," as it is termed, which is regularly placed before every State and Territorial legislature in the Union, upon the people of Illinois, but the State

medical organization was too alert for them and the prompt action of the many local medical societies throughout the State acting in harmony with their State secretary and legislative committee created a legislative sentiment which secured the ready defeat of all propositions looking to such silliness as creating a State Board for them. We congratulate the Illinois medical organization and commend their course to other States, and urge that the officers of State organizations and legislative committees keep their eyes open and on the lookout to encompass the defeat of such measures which do not benefit the public and tend to lower and degrade the profession of medicine.

PRIMARY SQUAMOUS CARCINOMA OF THE GALL-BLADDER.

In the University of Pennsylvania Medical Bulletin (January, 1907), Dr. John Speese reports a case of primary squamous carcinoma of the gall-bladder. The patient was operated upon and the gall-bladder extirpated. Microscopic study of the organ made the diagnosis of squamous carcinoma positive.

In explaining the origin of a squamous cell carcinoma of the gall-bladder we must accept one of two views: a direct metaplasia of the normal columnar cell lining into squamous epithelium; or the development of the tumor from embryologically misplaced epithelium. Many authors have endeavored to explain these growths by the latter theory, but they lose sight of the fact that in its development the gall-bladder is brought in no way into association with the derivatives of the ectodermal layer. For this reason alone the question of a misplaced *anlage* as a causative factor is excluded. Ribbert believes that a true metaplasia occurs only in areas which lie near ectodermal tissues, and that one can without difficulty trace the position of the abnormally situated *anlage*, or in other instances the extension from the ectodermal parts can be followed directly to the new growth. While this may occur in certain regions, as in squamous carcinoma of the uterine body, it is impossible to have such an extension in other organs, as the pancreas and gall-bladder.

Metaplasia may be defined as a transformation or substitution of specific cells or tissues by a structure also specifically differentiated and arising from the same tissue. The conception of metaplasia is to be sharply defined from anaplasia and pseudometaplasia. The latter term is applied to cells flattened by pressure, as in cyst formation in glandular structures, but in no way do these flat and compressed cells resemble in minute structure the metaplastic results in the case of a transformation of cylindrical epithelium into squamous cells. Well marked cases of metaplasia have been observed in the mucosa of the nose, ear, a great part of both the respiratory and alimentary tracts, gall-bladder, urinary system, uterus, and urethra. The transformation has been experimentally produced by Lubarsch, who induced the change in the bladder mucosa of rabbits. A defect was first made, followed by chemical irritation to retard healing; gall-stones and cherry-stones were then inserted, from the irritation of which island-like areas of metaplasia resulted. Futterer, after extensive experiments on the stomachs of rabbits, was able to demonstrate this change in four instances and conclusively traced the transformation of glandular epithelium into squamous cells.

Two forms of metaplasia are distinguished by Lubarsch. In the first, or regressive type, the original cells lose their former peculiarities and assume others of inferior nature. In the second, or progressive form, the metaplasia is associated with cell proliferation; the old cells do not change, but after their destruction the new ones, under changed conditions, assume the characteristics of a new and distinct type, and not the distinguishing features of the mother cells.

As the exciting cause in the production of metaplasia great emphasis is rightly placed upon prolonged mechanical irritation. Thus, the chronic catarrh of the nose, calculi in the gall-bladder or kidney, lead at times to the production of metaplasia, which assumes importance because of its tendency to undergo malignant degeneration. Metaplasia of ectodermal epithelium, as the lining of the gall-bladder, is rare, but this form is exceedingly malignant. It must not be assumed that simple mechanical irritation acts alone as the cause of metaplasia, but if that condition is continuous, and in addition there is a resulting circulatory disturbance, a metaplasia is likely to result. The importance of this mechanical action as the cause of metaplasia, and especially that form which leads most readily to cancer formation, should receive very careful consideration.

OPSONINS AND IMMUNITY.

In *The Lancet* of March 23, 1907, we find an article by Dr. J. L. Bunch explaining the method employed at the pathological laboratory of University College, London, to determine the opsonic index of any individual. The author also describes the treatment of disease by bacterial vaccines by the method elaborated by Wright and Douglas. The opsonic index of a patient to any one micro-organism is simply the expression of

the relative power of the patient's opsonins to influence the taking up of the micro-organism by phagocytes, as compared to that of a healthy individual. Briefly the technique employed to determine the opsonic index is as follows:

White blood corpuscles free from serum are prepared by mixing sodium citrate solution with a specimen of blood to prevent clotting and adding normal saline solution. This is placed in the centrifuge, and the fluid above the corpuscles removed. Two pipettes are used for the test. In one is placed equal quantities of blood serum from the patient, leucocytes prepared as previously described, and an emulsion of the bacterium in salt solution. In the second pipette is placed blood serum from a healthy person, leucocytes, and bacterial emulsion. The two pipettes are sealed and placed in the incubator at blood heat for 15 minutes. They are then taken out and blood films prepared from each, stained by Leishman's method, and examined under a 1-12 inch oil immersion lens. The number of bacteria contained in fifty polymorphonuclear cells is counted in each case, and since normal serum is taken as having an opsonic index of unity, the number of bacteria contained in fifty cells on the patient's slide, divided by the number in fifty cells on the control slide, gives the opsonic index of the patient.

It has long been a matter of uncertainty to which of the constituents of the blood its germicidal properties are due. That such properties exist is, of course, undoubted, and some of the earliest experiments on the subject showed that bacteria when injected into the blood stream rapidly disappear. It was shown later that defibrinated blood could destroy various kinds of micro-organisms, although after a time this same blood lost its germicidal properties and became an excellent medium on which the bacteria could grow. The germicidal powers of fresh blood must, of course, depend either on some substance contained in the serum or in the corpuscles, or on some actively destructive action of the latter. The white corpuscles, or phagocytes, have been shown to possess the power of taking up and digesting bacteria, probably by the aid of some intra-cellular ferment, and the opsonic method depends on our ability to estimate the relative capabilities of the phagocytes to take up bacteria when incubated with and acted on by different blood sera.

Phagocytes are either of the fixed or of the motile variety. The latter includes most of the polynuclear and mononuclear leucocytes. When micro-organisms are introduced into the body the phagocytes, both fixed and motile, seize upon the intruders and by means of their pseudopodia absorb them into their interior and digest them. This attraction of the phagocytes is due to what is known as positive chemiotaxis, and is most marked in those cases in which the natural immunity is greatest—indeed, the greater the natural immunity of the organism to infection the greater is the positive chemiotaxis. When the bacteria have been taken up into the phagocytes they are either digested by some ferment action or destroyed by some chemical poison possibly related to nucleic acid, but this action is not immediate and the bacteria are not instantly killed. This is shown by injecting into an animal phagocytes containing bacteria, and it is found that by doing this we can induce infection in the susceptible animal. If the bacteria are very virulent and the phagocytes are placed under disadvantageous conditions the bacteria may get the better of the phagocytes and kill them.

The influx of these white corpuscles to an infected area means that the organism is resisting the invading forces which threaten disease. The phagocytes are aided in their struggle by poisonous substances circulating in the fluids of the body, secreted possibly by the white corpuscles, which act upon the bacteria in such a way as to prepare them for digestion by the phagocytes. These bacteriotropic substances, or opsonins, make ready or prepare the bacteria for the further action of the phagocytes. An increase of the opsonic content of the blood in disease is brought about by the injection of the appropriate vaccine—e. g., of tuberculin in tuberculosis. If the right dose is given the anti-bacterial power of the blood is increased and the resistance of the patient to the disease increased.

THE PLAGUE.

Some idea of the terrible ravages of Bubonic Plague may be had from the following: There were 75,000 deaths from the plague in India during the week ending April 13. Seventy thousand of these occurred in Bengal, the limited provinces and the Punjab. The epidemic began in the Punjab in October, 1897. Since then nearly a million and a half deaths have occurred. This is awful; to think that a disease, which has been proven with tolerabel certainty to be preventable, is reaping so terrible a harvest of human souls is appalling. And the worst is that it is steadily but surely spreading. It is said that the present visitation is in vastness of territory infested and in fatality second only to the great Black death of the 14th century. One year ago the following places were infected with plague, and a glance at the map will show how world-wide the distri-

bution of the present pandemic is: The Afghan Frontier; Tirbat; Shekhjumi; Africa, Port Elizabeth, Chinde and Mozambique (in Portguese East Africa); Argentina, Santa Fe Province; Australia, New Coledonia, Fremantle, Perth; Brazil, Bahia, Pernambuco, Rio de Janeiro, San Paulo; Chile, Antofagasta; China, Hong-kong; Egypt, Alexandria; Formosa, four places; Hawaii, Kavai; India; Japan, Shimonoseki, Kobe, Osaka; Mauritius; Paraguay, Acension; Persia, Seistan; Peru, Callo, Lima, Gaudelope, and ten other towns; Philippines, Manila; Russia, the government of Astrakhan, (687 cases from November to February); Singapore; and Zanzibar.

PATHOLOGY IN GENERAL PRACTICE.

With all the great progress made in every field of medical knowledge no branch within recent years has advanced with such rapidity as pathology. And that branch which we call clinical pathology has assumed an importance as an aid to diagnosis which cannot be too strongly emphasized. Nowadays the term pathology has come to embrace such a vast range of subjects that to become a pathologist in its proper meaning is to exclude all other branches of medicine. Pathology includes bacteriology, protozoology, helminthology, hæmatology, morbid anatomy, gross and microscopical —each branch so broad that specialists have arisen in each of its component parts. In general practice—and by practice we mean the work of the general practitioners who compose the great majority of the profession who are not engaged in the practice of an exclusive specialty—it is a fact that there are few men who are able to perform the simplest tests, such as counting the corpuscles of the blood, estimating the hæmoglobin, making and examining a blood smear for malarial parasites, staining exudates for the gonococcus or tubercle bacillus, making examinations of urinary deposits. And granting that they are able to do it, the men who take care of the bulk of the community have difficulty in finding the time to devote to even these simpler laboratory tests. Consequently clinical pathology has come to be considered by some as a consultation branch whose aid is to be called in as a last resort in obscure and difficult cases. In many places there are individuals who give their whole time to this sort of work and laboratories devoted exclusively to this branch have sprung up. Thus the practitioner because of his complex duties and the many demands, social and personal, on his time finds it vastly easier to send his samples to some such place, pay a fee and have the results sent him. In this way he gradually forgets how to do the thing himself, and the oftener he doesn't do it himself the less desire he has to do it. But if it be remembered that the laboratory tests are as much a part of the physical examination of a patient as is the use of the stethoscope and inspection of the surfaces of the body it can readily be understood that clinical pathology is not something far removed from clinical diagnosis but only a part and a most important part of it. The physician cannot, as a rule, become an expert along these lines, but he can know many of the simple technical procedures necessary to demonstrate ordinary truths. The importance of the value of laboratory findings in indicating treatment must be thoroughly impressed upon practitioners before it can be hoped that they will adopt them as a routine method. It is easy enough to say that every doctor should perfect himself by taking a course in laboratory work and then make a practice of applying his knowledge for himself. But for practical reasons—some of which have been pointed out in the preceding remarks—it is extremely difficult to induce men to do it. If it were practicable for him to make it a routine to have an expert, or even one who has not yet attained to the eminence of expert, make the clinical tests necessary in every case all would be well. But this is an expense which neither the physician nor the patient is ready to assume. A great many of the younger men, especially those who have devoted attention to pathology during hospital service, are glad for a time to do this work for older men. In many places too the health authorities offer to make certain clinical tests free for the profession. The real need, however, is to get practitioners to understand the value of clinical pathology and the reasons why they should do it themselves. Separation of clinical from pathological work is undesirable; it may often lead to serious mistakes. Moreover, in certain diseases a test applied at the wrong time or only once may give an entirely erroneous result. In the case of typhoid fever it is known that the Widal reaction is not obtainable in the very first stages of the disease. Blood taken before this reaction has developed gives, of course, a negative result. Under such circumstances a totally erroneous idea is obtained, whereas if the practitioner can follow the course of the disease clinically, applying the reaction at frequent intervals, a positive knowledge of the nature of the disease is obtained. Besides, if samples be sent to another the results are not always reliable. They may become mixed; the examination may be entrusted to some one who is incompetent or who doesn't appreciate the gravity of the result. All sorts of things may happen

which could not were the doctor to perform his own tests.

We do not mean that these laboratory methods should be relied upon more than clinical methods; they should be considered only as aids to diagnosis. Nor should the laboratory be looked upon as a court of final resort. The two are co-related and inseparable; one should supplement the other.

Today no scientific physician for a moment questions the value of the methods of physical diagnosis—percussion, auscultation, &c.,—in the study of diseased conditions. Nay! it is easily acknowledged how impossible it would be to diagnosticate disease without these methods. And yet when they begun to be advocated in the first half of the 19th century there was just the same indifference, indeed real opposition, that exists toward the clinical pathology of later years. In 1836, Hufeland, in his Enchiridion Medicum, says: "The signs derived from hearing with the aid of the stethoscope or percussion have been much recommended for the diagnosis of chest diseases. These signs are, however, very fallible, and by them alone we can never discover the existence of an inflammation, unless we avail ourselves of those other symptoms, which are of themselves sufficient for a diagnosis." It has been possible with the methods of the past to recognize much about pathological conditions; yet with the aid of clinical pathology it is possible to understand a great deal more, diagnosticate more surely, and therefore to treat disease more rationally.

As the years pass there is little doubt that the value of these laboratory tests will come to be relied upon as a part of the physical examination of patients more and more. A physician will consider it as much a part of his routine to examine the blood, sputum, urine, &c., as to auscultate the heart and lungs.

CYANOSIS, GENERAL AND LOCAL.

In "the Lancet" of December 29th, 1906, there appeared an article by Dr. Thomas Oliver upon the subject of cyanosis. This condition may have existed from birth, as in congenital heart disease, or it may be of a somewhat fleeting character, attended occasionally by distressing symptoms, and comparable in its physical appearances with the cyanosis observed in heart disease yet free from cardiac lesion. When the blood is markedly venous in any patient, althought the presence of carbon dioxide contained therein stimulates the respiratory centre to greater activity, it does not follow that the more frequent respirations fully compensate for the excessive venosity of the blood. The defect in congenital heart disease is most frequently a patent foramen ovale or an incomplete inter-ventricular septum allowing an admixture of arterial and venous blood and thus explaining the general cyanosis.

In 1902 professor B. J. Stokvis of Amsterdam drew attention to cyanosis of intestinal origin in a young soldier who had resided for three years in the Dutch Indies and who was suffering from an intractable diarrhea, accompanied by marked cyanosis of the face, lips, fingers, and all the mucous membranes accessible to view. The heart, lungs, liver, and spleen were normal. The stools contained protozoa and myriads of flagellated organisms. In the urine a substance was present which when treated with phosphoric acid gave a ruby red and had the power of transforming oxyhaemoglobin into methaemoglobin. At the post mortem examination the heart and lungs were found to be healthy. The mucous membranes of the intestine was ulcerated at places. Stokvis was of the opinion that the patient suffered from enterogenous cyanosis, or auto-intoxication of intestinal origin, and that the blueness of the skin and mucous membranes was the result of the absorption of a substance generated in the intestinal canal, probably skatol or indol, which was capable of transforming the oxyhaemoglobin of the blood into methaemoglobin. The interesting point in Stokvis's patient was that both during repose and in moderate movements there was an absence of the phenomena of dyspnoea usually observed in cyanosis of a marked character.

Soon after Stokvis's paper was published, Talma related three cases of toxaemic cyanosis in all of which the blueness of the features was pronounced; all the patients had diarrhea. Spectroscopic examination of the blood revealed the presence of methaemoglobin, which further special examination showed to be not circulating in the plasm but fixed in the red blood corpuscles. Talma attributed the cyanosis in his patients to intestinal absorption. In two patients, the details of whose illness were published by Hijmam van der Bergh, it was shown that while the cyanosis was of intestinal origin the conditions were more complicated than at first sight appeared, since in one of the men the cyanosis was not due to methaemoglobin but to the presence of a sulphur compound in the blood.

Notwithstanding this evidence the cyanosis of enterogenous origin is not always the result of the action of sulphur bodies upon the blood, for in other patients van der Bergh and Grutterink found nitrites in excess in the blood which they regarded as the agent which transformed oxyhaemoglobin into

methaemoglobin. Admitting that nitrites have this power, the question is still unsolved as to whether the over-production of nitrites is the result of microbic activity in the intestine, the consequence of absorption through an abraded or ulcerated portion of the intestinal mucous membrane, or is due to loss of the power normally possessed by the organism of disposing of these bodies. Since there are several kinds of bacteria in the intestinal canal, of which the bacterium coli commune need alone be mentioned, capable of forming nitrites, there is much to support the theory of the microbial origin of the malady.

Aniline is largely used in the arts and manufactures. Workers in aniline factories become markedly cyanosed and pass dark-colored urine. Animals to whom aniline has been given die in convulsions preceded by a fall in the body temperature. The blood, which becomes pitch-brown in color, does not coagulate well. Its oxyhaemoglobin becomes converted into methaemoglobin. This transformation diminishes the quanity of oxygen in the blood. With the formation of methaemoglobin there is a reduction in the number of red blood corpuscles.

In addition to these forms of general cyanosis there is a localized blueness seen in the hands and feet and known as Raynaud's disease. The malady is due probably to some defect in the nervous system of which defect we know absolutely nothing.

Treatment of the cyanosis of congenital heart disease is that of symptoms as they arise; of enterogenous cyanosis the detection of the cause and if due to drugs discontinuance of the drugs; if there is autointoxication from the elaboration and absorption of intestinal poisons, correction of the same by cholagogue purgatives and intestinal antiseptics; while for Raynaud's disease protection from cold, the administration of tonics, and the use of electrical baths; but under all circumstances the treatment of Raynaud's disease is generally unsatisfactory.

WHAT IS FEVER?

In "The Practitioner" (April, 1907) we find a very interesting article by Dr. Woods Hutchinson entitled, "What Is Fever?" We know perfectly well what fever is, what it indicates, and what to do for it. Yet, if anyone were to ask us what the meaning of this rise of temperature is, or what the mechanism of its production, we should find ourselves floundering at once. Upon our answer depends our whole attitude toward, and consequent treatment of, this departure from the normal. An enormous amount of thoughtful, painstaking research has been done upon the problem, which while it has not brought us to, or even apparently in sight of, the solution, has been exceedingly helpful in clearing away some of our misconceptions. The simile of the body as a steam engine, with heat as the motive power is begining to be regarded as untenable and misleading. The actual work of the body is probably done by the chemical or electrical energy stored up in the complex food molecule, and the heat produced is probably a friction waste-product. The body is not "burning itself up" in fever, our fever patients are not in the condition of a man doing heavy tasks of hard muscular labor, and all methods of treatment based upon this conception will have to be modified or abandoned.

It has been pretty clearly established that the destructive changes in the tissues in fever are due, not to the elevation of temperature, but to the toxin which causes the elevation. Very instructive in this regard are the findings of Roger and Hericourt, who found that in rabbits the same toxin, which in moderate doses would produce a marked elevation of temperature, with the clinical symptoms of fever, in large doses produce, instead of an elevation of temperature, a marked depression. If the dose were still larger this depression of temperature would rapidly increase, and the animal die in frigid collapse within a few hours, showing clearly that an elevation of temperature is indicative of the possibility of resistance on the part of the tissues.

The one change which is absolutely constant in fever is an increase in the output of nitrogen; some of it in the form of urea, more in that of uric acid, or other nitrogenous excreta. This means an increase of destructive metabolism in the tissues themselves, with the result that the energy, derived from the food' stored up in them, instead of being liberated in the relatively cool, smooth. and frictionless form of growth or secretion is wasted in the form of heat. Fever is always pathological, not in any sense an increase of the normal work of the body, with a consequent increase of temperature, such as would be produced in a steam engine by increasing the combustion under the boiler. The next,thing with which fever is almost invariably associated is an impairment of function, almost to the degree of stoppage. The higher the temperature, the more completely the body is incapacitated. Bile, gastric juice, saliva, even perspiration, cease to be secreted, muscular activity sinks to the lowest level, and all the activities of

the body become clogged and impaired. There is an almost utter stoppage of all useful metabolism, with sudden conversion of the energy normally used in this into the waste product heat. Further than this it explains how, if the process goes a step farther, by utter failure of the powers of resistance, or from excessive dosage of the toxin, this stoppage of metabolism becomes so absolute that not even enough waste in the form of heat is produced to keep up the body temperature. This latter rapidly fails, the patient goes into a collapse, and, if the process is not speedily checked, dies. Not an excess of matabolism, but an abnormal form of it is the secret of fever.

The same parallelism obtains here that does in normal temperature regulation; it is most closely associated with an attempt at elimination of waste products. In fever the amount of waste in the blood is raised to abnormal pitch, consequently there is a desperate attempt on the part of the heart to drive it out to the surface, both cutaneous and pulmonary, for purposes of elimination. Part of the increase of heat, both of the surface and of the expired air, is undoubtedly to be accounted for in this way. Any procedure, therefore, which will tend to relieve the surface conditions, restoring the tone of the cutaneous blood-vessels and arresting the paralysis of the sweat glands and pulmonary alveoli, will be of value in assisting nature to get rid of the infectious materials. It has long been obvious that baths in typhoid and pneumonia, and packs in scarlet fever and measles, act in a far more potent and radical way than merely by lowering the temperature. It is by deepening the respiration, steadying the heart, increasing the flow of urine, and restoring the pulsations of the great skin-heart, that they do good in fever in a far higher degree than by a mere increase of the escape of heat.

THE DEFECTS IN THE PLAN OF ORGANIZATION OF THE AMERICAN MEDICAL ASSOCIATION.

American Medicine (May, 1907), in its editorial columns, discusses at length and in unmistakable terms certain evils and defects in the present plan of organization of the American Medical Association. Attention is directed to the growing spirit of dissatisfaction and criticism on the part of members at the autocratic attitude of some of the officials and to the disregard by these individuals of the rights of those outside the "ring." While it is not to be denied that no human organization has ever existed without dissatisfaction on the part of some of its members, yet it must be conceded that where criticism is rife it is short sighted and foolish to think that betterment is impossible. The writer says the evils of too much officialism are recognized generally throughout the profession, and protest is common. He points out the opportunities for corruption resulting from centralization of power, and urges the right of the body of members to have a voice in the general policy of the association. At present the rights of individuals are ignored, the provision of the referendum is purely optional. Instead of self-government, the members of the association possess only the privilege of electing their governors—the delegates—and through them the trustees, who may or may not be actuated by correct principles.

Too often the politician benefits chiefly or alone by what the statesman has built up. When power is vested in the hands of the few, who may use official positions for private advantage, corruption and graft are more than possibilities. In any governing or legislative body honesty and identity of interest will inspire true representation. But when that body is uncontrolled save by periodic elections, and is without direct recourse to popular endorsement or reversal of particular acts, the representatives are free to legislate in their own interests collectively or individually, or in the interests of others who furnish sufficient inducements. The duty and the self-interest of functionaries do not always agree, and self-interest has many disguises. In office, when possibility of revision of their acts is negligible, good men are difficult to keep good.

There is danger, under the present organization of the plenary powers of the trustees being regarded as proprietary rights. These nine men (with the President and Secretary) may divert portions of the vast accumulations possible under the present policies to ends not in accord with the original aims of the association nor thoroughly representative of the great body of the profession. One may instance such steps as entering into competition with publishers of books or with the manufacturers of drugs, in the name of the Association and by use of its funds. The real aims in such measures may be masked by a specious plea for purity and professionalism. Even the admirable Council of Pharmacy might be made to further such schemes by clearing the field of competitors.

Regarding the policy of the present "rulers" in conducting the Journal of the Association the writer says: The Journal is the property of the members of the Association, not of its trustees or officers. It must therefore be conducted in the spirit of the profession at its best, not as may seem good to any individual or coterie. Much of the danger of misrepresentation of the will of

the general body of the Association and of the profession is particularly possible with regard to the official organ of the Association. There should be the utmost freedom of discussion in the pages of the Journal of all matters relating in any way to the interests of the profession. This should apply especially to the proceedings of the House of Delegates, which should be published verbatim. The most obscure member of the Association, who cannot afford to leave practice and spend money to be present at the deliberations of his representative body, is entitled to know not only what scientific work has been done at the annual meeting, but also in what manner its financial affairs are conducted, what affairs come before its legislative sessions, and the matter and manner of debate, and the votes recorded on any subject.

The duties and functions of the editor of the Journal must be more clearly defined. He cannot be, in any sense, "independent," nor can he have discretionary power. The Journal must mirror the sentiment of the Association as a whole, but must give due representation to minorities. The unknown and presumably unimportant member is as much the owner of the Journal as any elected or appointed functionary. It is impossible to "divorce the Journal and the Association." The strictest justice and impartiality must be the only policy of both. Personal judgment and the gratifying of private piques are indefensible. To this end, although the editor should have absolute freedom of literary revision, the right of determining the scientific and other contents of the Journal must rest with the sections and the Association. That the Journal of the Association no longer represents the policy of the Association save so far as its policy and that of certain officials coincide is well known. Representation in the Journal has been denied time and again to those who venture to disagree with the sentiments and policies of those who constitute themselves the court of last appeal. It is stated that threats even have been used that the whole power of the Association Machine would be brought to bear to bear against a recalcitrant, to insure his humiliation and disgrace, unless he would forego the publication of his side of the case. Power to exclude a fellow-member of the Association from any of its rights and privileges must be carefully withheld from any functionary or set of officials.

The attitude of the "ring" toward independent medical journals and the attack upon their existence by organized power is a direct blow at the profession itself. To them, more than any other agency, has been due the development of the movement toward solidarity, as well as the advance of science or reform. The initiative has always been theirs, and, so long as progress springs from the work of the few instead of from the work of organized bodies, they will be needed that growth may come. They alone can represent independent thought, or exercise the wholesome function of disinterested criticism.

At the head of the autocracy is a group of officers whose powers are practically unlimited. Of the five lucrative offices at the disposal of the Association, four are assigned not by the members of the Association, nor even by their representatives in the House of Delegates, but by the trustees. And these functionaries are directly accountable to the trustees alone. Two of these officials, the Organizer and the Advertising Manager, each hold but one office. The other two, General Business Manager and Editor, the most important, are represented by one individual, who also combines with these appointive offices the elective position of Secretary of the Association and Board of Trustees. From the standpoint of power and opportunity, the secretaryship may be made far more important than the presidency, which can be held for one year only. In times past presidential communications have been received with the proper residential date line but bearing a Chicago post-mark several days later. This would seem to show that certain Presidents may acknowledge the supremacy of the Secretary—or the Editor! By a curious oversight the Secretary, the Editor, and the General Business Manager each forms a strong factor in the bodies governing his actions, compensation, policy, etc. It is stated that the incumbent of these offices is present at all the meetings in an attitude of practically determining all decisions.

In the interest of progress it is apparent that reform must come. The writer thus summarizes those demanded by a large and increasing body of the profession, among whom are many members of the Association, and not a few of its officers:

1. Verbatim reports of the proceedings of legislative and governing bodies.
2. Itemization and utmost publicity of financial matters.
3. Proper representation in the offices of Secretary, of Editor, and of Business Manager by separate individuals, with proper compensation.
4. Nondiscretionary power of the Editor, with government by the Sections of the published proceedings.
5. The rendering impossible of trades-unionism and monopolistic methods.
6. Provision for general secret ballots upon important questions of policy by means

of the machinery of the Association and its Journal, through district and county societies.

7. The extension of the referendum and initiative from the optional legislative to the popular and obligatory form.

8. In order to protect apparent minorities, placing the vote necessary for both referendum or initiative upon a reasonable basis.

9. The rights of individual members must be held inviolate from attack by those in power.

10. The Association and its Journal must be enjoined from entering into purely commercial competition to the detriment of its professional rivals.

11. No paid agent of the Association should be permitted to be a member of, or take part in the deliberations of, the bodies governing or directing his actions or compensation.

THE OSTEOPATHIC BILL.

Although many commendable things were done by the recent legislature there are a few most unfortunate and inopportune acts. One of these is the new law in regard to nurses: another most nefarious of all is the law which practically puts the Osteopaths on the same footing as the Regular school of medicine. If there ever was an outrage perpetrated on a commonwealth it is the passage of that measure through the legislature. It and its cousin-germain—the Christian Science bill—have done more harm to medical progress in this State than can be remedied in fifteen years. It isn't that the medical profession is opposed to legislation in behalf of Osteopaths. As the Medical Sentinel says: There could be no more objection to that than to Turkish bath operators getting bills through they think they need. But the medical profession does most strenuously object to Osteopaths, some of whom possess the most meager general education, and very little knowledge of medical science, posing before the public as doctors learned in the art of healing. We contend that Osteopaths practice medicine and surgery from a narrow, unscientific standpoint, and deceive the ignorant public on their qualifications. There would be no objection to Osteopaths inviting the public to come to them with their ailings, if their colleges will demand a four years course of eight months each in professional studies, and if their graduates will submit to the same examinations as the regulars, eclectics and homeopaths in the fundamental and scientific branches in anatomy, physiology, bacteriology, chemistry, obstetrics, surgery and pathology.

As pointed out by Judge Clark in his decision, the reasons Call could not be convicted of illegal practice was that Osteopaths practice *neither medicine nor surgery*, hence do not come under the police power of the State, and therefore not an indictable offense against the laws of the State. And now, forsooth! this last legislature turns right around and passes a law which recognizes and dignifies this Cult by giving them a Board and allowing them to practice Surgery (Minor Surgery) which means, according to Dr.(?) Mecham, everything except a laparotomy, or all that DeCosta says is Minor Surgery. Great Gods! have we come to this in these last days? In these days when we are boasting of our progress and achievements in our State Society and are pointed to as the pioneer State in the great movement for higher standards of medical education and for finer ideals in the practice of medicine. Where the evil will end there is no knowing; for it subverts much that has been accomplished before. A candidate for license to practice medicine, failing before the regular board, has only to appear before the Osteopathic board to be legally qualified for practice. To what end have all those toilers in the years gone by striven for laws and given the best in them to elevate the medical profession to its present high estate? Only to have their hard fought victories turned to defeat by a lot of legislators who know as little about scientific matters and the necessity of a high standard of professional attainment as it is possible to imagine in a group of intelligent men.

Review of Southern Medical Literature

Virginia Medical Semi-Monthly, April 12th, 1907.

Therapeutic and Food Value of Breast Milk.—Dr. Geo. T. Grinnan says that the plan tried at the Massachusetts Infant Asylum was as follows: A wet nurse, a poor mother, was engaged, provided she continued to nurse her own child. She came to the hospital three times daily. She nursed two babies each time she came. The babies were weighed before and after nursing and the woman was paid for her milk by the ounce. The poor mother is frequently compelled to wean her own baby in order that she may go to work. By going to the hospital the mother can earn sufficient money to give up other work, and she can also nurse her own child. Breast milk is to the infant's hospital what aseptic and antiseptic methods are to the operating room. Heubner pointed out that the high death rate in infants' hospitals resulted from

the fact that infants who recovered from diseases for which they entered were stricken down with some infectious disease or infectious processes. Holt continually points out the high mortality of infant hospitals. Schlossman has shown that the alternate feeding of breast milk in the Infant Hospital of Dresden has reduced the mortality to 25.6 per cent. against 58.5 per cent. at Charite where no breast milk is given. Surely physicians should be very careful in allowing children to be weaned. Mothers should be fully advised as to the advantages of breast milk. We should be careful about taking infants to hospitals and subjecting them to infection and not providing any breast milk. Small quantities of breast milk produce good results and prevent infection. We should therefore provide three or four ounces of breast milk daily for each hospital infant where it is possible. The most prominent example before us now as pointed out by M. Reiny in his notes on Japan is the vitality of the Japanese children. In Japan the women have a remarkable abundance of milk, and give no other food during the first year. In regard to infant mortality let us hope that in the future we shall no longer agree with Sir Thomas Browne, who said, "For the world I count it not an Inn but an Hospital and a place not to live but to die in."

Principles of Surgery, Lecture XXV, Abscess of the Antrum, Liver, Breast, Lung and Brain.—By Dr. Stuart McGuire.

Nashville Journal of Medicine and Surgery, April, 1907.

Diphtheria.—Dr. J. B. Murfree believes the treatment of diphtheria is prophylactic, conftitutional and local. The prophylactic treatment consists in scrupulously isolating the patient and thoroughly destroying or disinfecting all secretions, exudations, etc., that are discharged from the parts affected, while the room—the furniture, bedding, etc.,—must be rigidly and repeatedly disinfected. Perfect cleanliness and thorough disinfection is the watch-word and the reply in the prophylactic of diphtheria. The constitutional treatment of diphtheria consists in the early administration of the antitoxin; its place in the therapy of diphtheria is now assured, and as soon as diphtheria is diagnosed the antitoxin should be administered at once and repeated at regular intervals until the disease begins to subside. The antitoxin is the one remedy above all others in the treatment of diphtheria, and to secure its full value it should be given early in full doses and repeated at regular intervals. In a suspected case do not wait for a culture test but give the antitoxin at once, for if the disease is not bacillary diphtheria no harm is done. In addition to the antitoxin the general management of the patient must be looked after—rest, quietude, free ventilation, good feeding, alcohol, digitalis, strychnine, nitroglycerine; for respiratory weakness, atropine. Whiskey in full doses should be given from the beginning to the end of the disease.

The local treatment consists in the cleansing and disinfecting of the throat, nose, and pharynx by irrigation, spraying or local applications. In laryngeal diphtheria, where the obstruction is increasing, threatening suffocation, the child should be intubated, and if this fails a treacheotomy must be done.

The Mobile Medical and Surgical Journal, April, 1907.

The Treatment of Extra-uterine Pregnancy, With a Report of Thirty-two Cases Treated at the Cook County Hospital.—Dr. A. P. Heinech gives the following summary of this article:

1. Only three of these women gave a history of previous sterility. Sixteen had had one or more children. Nine had had one or more miscarriages. One of these patients had seven children, another eight and two had four each.

2. The youngest patient was 18 years old; one was 19 years old; the oldest was 42; the next to the oldest 40 years old; 11 were between 30 and 40; 15 were between 20 and 30.

3. Signs of pregnancy, such as tender breasts, enlarged uterus, softened cervix were noted in about one-half of the cases.

4. Pain in the lower abdominal region, menstrual irregularities, such as delayed or skipped periods, continuous vaginal hemorrhage, passage of a uterine decidual cast, etc., and a palpable mass in one or the other or both fornices were present respectively in 30, 28, and 31 cases. The author notes these three symptoms under a special heading, because he believes that their presence is highly suggestive of ectopic gestation and because he believes that the above justifies us in holding that the following symptoms, when associated, are most important aids in the diagnosing of extra-uterine pregnancy: (a) Abnormalities of menstruation. (b) Pelvic pain usually referred to one ovarian region. (c) Presence of a pelvic or pelvo-abdominal mass almost always distinct from the uterus. (d) In rupture signs of internal hemorrhage varying from increasing pallor and fainting spells up to complete collapse.

5. Pain, intermittent and colicky in character, was complained of by 23 of the patients; 5 experienced a single severe pain preceding rupture of the ectopic mass. In

20 cases palpation of the mass produced severe pain, and in but two instances was manipulation of the tumor unattended by pain.

6. Conception took place in the right Fallopian tube 17 times; in the left 14 times and not determined once.

7. Thirty cases were treated by the abdominal route; one by the vaginal route; one by the combined (vagino-abdominal) route. The latter case died. Drainage was employed in nine cases, necessitated in almost all instances by capillary oozing which apparently could not be otherwise controlled.

8. There were two deaths in the series, each due to acute general peritonitis. In one case numerous adhesions had to be torn; in another the pregnancy was much advanced and the operation was very complicated. Except in the two cases which died recovery was rapid and uneventful.

Southern Medicine and Surgery, April, 1907.

Amoebic Dysentery.—Dr. T. A. Mitchell says under Symptoms and Diagnosis that he wishes to mention only such symptoms as appear to him to be diagnostic being found in the literature. While the diagnosis of amoebic dysentery is made absolute by finding the amoebia in the stools, it is not necessary to look for them in every case of acute dysentery, but chronic cases should all be examined for amoebia if the diarrhoea is irregular or intermittent with infrequent tenesmus and moderate fever. Chronic dysentery is afebrile and the stools are uniform in character, quantity and frequency. The cell elements are few and the amoebia are easily detected if present. The onset may be abrupt or gradual, but in most cases a frequent and painless diarrhoea follows a period of slight ill health. True relapses are common and the tendency to chronicity is very great, Diarrhoea may be the only feature of the disease. It is characterized by great variation in character and frequency in all grades and during different periods of the disease. Intermissions and exacerbations may be observed at any time. The stools are extremely variable, according to the severity of the ulceration. In the more moderate types the stools at the outset are like those of gangrenous dysentery if the attack is abrupt. If gradual the stools are fecal liquid, containing mucous and streaks of blood and gelatinous grayish masses. Stools of this character number from four to ten in twenty-four hours. This may continue for weeks. During the exacerbations the stools resemble those of the second of gangrenous fever. In chronic dysentery there is not so much mucous and blood except in exacerbations. Mucous is persistently present, however, in the intermissions when the stools are soft and fecal. Abdominal pain is constant; it occurs in the early stages of both forms and in acute exacerbations. In the gangrenous form pain disappears, although the intensity of the process is increasing. In all cases the pain is cramp-like, boring or burning in character and usually precedes and accompanies movements of the bowels.

Treatment.—Formalin and aqueous sol. of formaldehyde gas about 40 per cent., which is equal in antiseptic and germicidal properties to bichloride of mercury and can be used in strength of from 1-1000. In a case treated twelve years ago the author used nitrate of silver 1 dr. to one-half gallon of water.

Memphis Medical Monthly, April, 1907.

Starch Digestion in Infancy.—Dr. W. S. Campbell believes that infants are often fed according to a rule or system—a baby of a certain age receiving a specific dilution. Every case should be carefully studied as to its capacity by beginning with weak mixtures and gradually increasing until a food sufficient for the growth and development of the body without over-taxing the digestive system is reached. The feeding of starch gruels, as milk diluteuts, should be begun by administering 100 grains daily to a child under three months, 200 grains from three to six months, over six months one ounce, gradually increasing until a sufficient amount for the needs of the organism is reached. The stools should be carefully watched for evidence of starch digestion indicated clinically by abdominal distention and white, sour, loose stools, but more accurately by the iodine test. This is quite a simple matter in general practice, for a small portion of the stool can be collected in a tin box and examined at the office. All that is needed is a test tube, water, Lugol's solution and heat. When starch is constantly present for three successive days the intake should be reduced one half. If then persistently present dextrinizing agents will be of advantage. Of those on the market the author has found Cereo to be most efficient, though Fairchild's diazyme has been of service. For the first month the author uses dextrinized gruels, believing that the predigested food can be more readily assimilated at that period. In older infants who are unable to digest the proteids of cow's milk concentrated predigested gruels will often be found an excellent substitute for a time.

The summary of the entire paper is given as follows:

1. The author considers the above as con-

clusive evidence of starch digestion in infancy.

2. Starch gruel, notably barley water, is a most satisfactory milk dilutent.

3. Gruels for infants under one month and for those of poor starch capacity should be thoroughly predigested.

4. The infant should be carefully watched and stools occasionally examined for starch, being careful to carry out the proper technique, as the slightest deviation may cause varied conclusions.

Gaillard's Southern Medicine, April, 1907.

A Plea for the Operative Cure of Hernia.—Dr. G. P. LaRoque regards the treatment of hernia by the injection of such irritating substances as alcohol and iodine as irrational, painful, and non-curative meddling more serious than an uncomplicated simple hernia and productive of such anatomic alteration as thickening adhesions and distortion of structures, rendering future operation essential and difficult to perform.

The radical operation for the cure of hernia should be performed as early as possible after the development of the affection while the hernia is simple and small, the structures non-attenuated and undisturbed in their anatomic relations, and before the onset of secondary impairment of health. It is but right to add that the radical cure of hernia is not one of the easiest, simplest operations in surgery. Indeed the poor results sometimes seen from the treatment employed by the unskilled is in no degree responsible for this belief that the radical treatment does not guarantee against recurrence. The operation should therefore be performed by those skillful and possessed of technical judgment not only in the mechanical part of the work but in being able also to discover and remove or alleviate such predisposing causes as favor recurrence. There are such surgeons in almost every section of the country at the present time, and there is no longer any more excuse for the persistence of hernia than for the prevalence of epidemics of smallpox, diphtheria, and other easily preventable and curable diseases.

There should be a renewal of interest in the cure of this affection, particularly on the part of the general practitioner or family physician—for while it will doubtless be only a short time before the public at large will learn through surgeons and their patients the facts and the advantages of the operation over the truss method for the treatment of the malady there should be cooperation on the part of the family doctor for the good of the public.

Atlanta Journal-Record of Medicine, April, 1907.

The Signs of Real Death in the Absence of a Doctor.—Dr. W. E. Taylor says that Dr. Icard has discovered a test or proof of death which is not only an early one but is simple and infallible. The presence of this sign precludes all possibility of a return to life, as it is dependent on putrefaction for its existence. Putrefaction as he has mentioned is the one sign besides the permanent cessation of circulation, which is a positive sign of death. The circulation may apparently cease and then resume again and its detection is difficult. Putrefaction begins only when life ceases, and it is toward the earliest possible detection of this that the author bends his energies.

Decomposition begins in all probability in the lungs, and it is at this point that it is most easily detected. The first products of decomposition are the sulphides of hydrogen and ammonium which are liberated in considerable quantity from the free and moist surface of the respiratory tract and escape from the nostrils if the mouth be kept closed. There are no sulphurous gases found in the body during life, either in the bowels, stomach, or even in fetal, bronchial, or lung conditions, at least sufficient to give a test for the same. After death the quantity is very large and a test can be made and the presence of gas as well as the absence of life or any probability of its return proven to the naked eye of any observer.

Dr. Icard resorts to a very ingenious and simple method to detect this gas. He takes a piece of filter paper moistened in a neutral solution of lead acetate in two parts of distilled water and places it either in or over the nostrils. The hydrogen sulphide gas escaping and coming in contact with the lead forms black sulphide, blackening the paper, and thus making an indellible sign of death. In the absence of the lead acetate solution a freshly brightened piece of copper or silver money will serve as well, and the blackened or tarnished stain of silver or copper sulphide is left upon the coin. These signs are easily obtainable within from twelve to thirty-six hours after death, according to climatic conditions. The author thinks that this test should be resorted to in all cases before a burial permit is given, and recommends that its observance be compelled by legal measures. In this way there would be no possibility of living interments in the future.

Virginia Medical Semi-Monthly, April 26, 1907.

Principles of Surgery, Suppurative Arthritis, Suppurative Menengitis, Suppurative Pleuritis and Suppurative Perito-

nitis.—Dr. Stewart McGuire says that in general suppurative peritonitis a prompt operation gives the only chance of life. Formerly patients were opened, eviscerated, washed out with gallons of saline solution, and drained through multiple incisions. The present practice is to make an incision over the suspected primary focus of infection, say a perforated intestine or gangrenous appendix, stop the introduction of additional infection by closing the perforation or removing the appendix, put in a large rubber drain which should reach to the most dependent point, which is Douglas' cul-de-sac in the female and the corresponding pouch in the male; and then without attempting irrigation or cleansing of the cavity place the patient in a sitting position in bed. This relieves peritoneal tension which is forcing sepsis into the circulation drains toxic fluids from the absorptive surface of the peritoneum of the upper abdomen to the practically unabsorptive surface of the pelvis, from which point it escapes through the tube to the dressings. The surgical treatment should of course be reinforced by fluids, food, and stimulants by rectum, and drugs, such as morphia and strychnine, hypodermically. The stomach should be emptied and cleansed by lavage and no nourishment or purgatives given by mouth until the crisis is passed.

The Texas Medical Journal, April, 1907.

The New One Board Bill Medical Examiners for Texas as Amended and Passed April 5th, 1907.

The Southern Practitioner, April, 1907.

A Further Report on Opsonic Treatment

—Dr. J. M. King says that considerable investigation into the character of opsonic index in different varieties of pulmonary tuberculosis has yielded the following generalizations:

1. Early cases or more advanced cases that have had complete rest in bed for a time, and also sanitarium 'cures' show a low or lowered index.

2. The more advanced cases show a high or fluctuating index.

The importance of the fact that early cases of pulmonary tuberculosis have this lowered index cannot be easily over-estimated because it probably means that the tuberculous process tends to be localized. Theoretically, inoculations would be beneficent. The author has treated two cases with good results. Crace-Calvert corroborates Ross in this statement. The former says that the majority of such cases would recover from sanitarium treatment but the course would be shortened by inoculation. Ross' experience leads him to believe that there is not much hope for tuberculosis inoculation in well-advanced cases. With reference to diagnosis certain points have been fairly well established: 1. Normal individuals present a constant opsonic index for the various pathogenic bacteria. 2. Individuals the subjects of a strictly loealized infection due to any micro-organism show a lowered index to that particular micro-organism as compared to a normal person. 3. Individuals, the subjects of systemic infection show a higher index or a fluctuating index. Dr. Wright believes the fluctuation to be due to repeated inoculations from his own focus of disease, and is comparable to the effects of an artificial inoculation: namely, negative and positive phase. Ross reports a case which had been sent to the hospital as one of tuberculosis, but there being no positive signs an opsonic examination revealed a systemic gonococceal infection—the gonococceal index was —— normal.

Ross has used this method in diagnosis in: 1. Malignant diseases of the lungs. 2. Chronic bronchitis and emphysema. 3. Bronchiectasis. 4. General debility. 5. In cases of peritoneal and pleural effusion. The diagnosis of early tuberculosis is under investigation.

New Orleans Medical and Surgical Journal, April, 1907.

Menorrhagia and the Microscope.—Dr. P. Michmard says that cancer of the cervix in its third stage with its "cauliflower mass" presenting is easily recognized by the clinician. But such is evidently not so when the disease is in its first or second stage. And here the microscope strikes a stumbling block. Bozzi says in his work that where there is a serious doubt as to whether the disease is or is not cancer the chances are that it is not cancer. Clinically in this form of cancer in its first stage and in hyperplastic cervicitis there are menorrhagia, hardening and thickening of the cervix with nodules consisting of retained contents of cervical glands, whose contents can be determined by puncture, when there will exude a pearly colored thickish fluid. Such will not obtain if the nodule is cancerous. In cancer digital examination and coitus will cause bleeding. Not so with benign hyperplasia. Laceration of the cervix with great hyperplasia and eversion is at times mistaken for squamous epitheoma at its second stage. Microscopical examination of a simple wedge-shaped piece of tissue, not including normal tissue, will here most probably lead to error. Such a case should temporarily be treated as benign, an extensive trachelorrhapy perform-

ed and all this removed tissue sent to the microscope. If the patients be near the menopause, even though the report be favorable, the author examines them every 6 or 8 weeks for about 6 months or a year.

One should remember that where rawness of the cervical tissue is due to eversion of an evaded non-cancerous mucous membrane it will not crumble or bleed profusely on pressure from the finger, which would occur if it were cancer.

Where menorrhagia is co-existent with excessive hyperplasia, with only slight laceration or without laceration, we have a condition that usually resists all conservative treatment and if left alone may soon display a malignant nature.

The American Practitioner and News, April, 1907.

Heredity.—Dr. G. B. Jenkins believes that the question of heredity has no place in the etiology of the diseases of bacterial origin aside from the modifying influence of inherited susceptibility. Tuberculosis was long held to be heredity, but it is now generally conceded to be transmitted through the placental circulation. Syphilis has been the strongest point of all in the argument for the inheritance of disease. One syphilographer says "Syphilis is a strictly inherited disease and is inherited from the mother and when she is unquestionably exempt from the suspicion of syphilis and the father is sure syphilitic the child invariably escapes." Another states that seminal transmission is by far the commonest means of transmission. A third affirms that the liquor amnii of a woman bearing a syphilitic child is capable of infecting a susceptible person. It is acknowledged that syphilis is not transmitted to offspring after the time when it ceases to be communicable through ordinary channels, i. e., after it loses its power of infecting susceptible individuals as we are all familiar with Collis' law. Looking at this, in a way, remarkable conglomeration, we can surely see that it is a case of the fetus being infected and neither a spermated nor an ovum transmission. A brief look at the beginning of things shows us that the instant the spermated leaves the epididymal cell or the ovum leaves its formative cell—in other words, when they become respectively a spermated and an ovum —they that instant cease to be a portion of the parietal organism and become possible factors in the production of a new being; and that moment the union is complete between the male and female elements, that moment begins the life history of a new being which from its very inception a separate and distinct entity, even being dependent of the maternal organism for nourishment for a short time succeeding impregnation. We know that the essential portion of the spermated measures 4.5 u long, 2.5 u broad, and 1.5 u thick, and in considering the individual spermated as the carrier of a disease germ it would be patent that such an event would result in the death of the microscopic host or less likely of the scarcely smaller invader; either conclusion would be an abortion of the idea of the spermated transmission of disease. And whilst it is somewhat larger than the male element still a similar argument would be true of the ovum. It is conceded that impregnation most frequently takes place in the outer third of the oviduct, so there is plenty of room for any disease germs which may be present in the ejaculatory fluid to gain entrance to the maternal tissues between the point of deposit and that of impregnation, and later to infect the product of conception through the placental circulation or to cause such local disturbance as to produce abortion or any of the undesirable results which we know can occur.

So of the abnormal conditions present at birth in the child we recognize that tissue types are inherited and diseases and defects are the result of infection of the fetus or conditions arising during development either errors of development or other causes which find the unmature being a favorable field for operation.

Richmond Journal of Practice, March, 1907.

Some Observations on Pyrexia and Subnormal Temperatures in Infancy and Childhood.—By Dr. W. A. Northridge.

The Southern Clinic, April, 1907.

The Cancer Problem.—By Dr. R. Bell.

Maryland Medical Journal, April, 1907.

Notes of Histoplasmosis—A Fatal Disorder met with in Tropical America.—By Dr. S. T. Darling.

Book Notices.

A Manual of Personal Hygiene: Proper Living upon a Physiologic Basis. By Eminent Specialists. Edited by Walter L. Pyle, M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Third Revised Edition. 12mo of 451 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth $1.50 net.

"Health is man's birthright." Ignorance and transgression of physiologic and

hygienic laws give rise to most diseases and tendency thereto. Most cases of illness are preventable with proper methods of living. This volume sets forth plainly the best means of developing and maintaining physical and mental vigor. It gives concise discussions of the anatomy and physiology, with a great deal of practical advice concerning the proper care of the body. It is astonishing how much accurate information is contained within the covers of so small a volume.

The Care of the Baby. By J. P. Crozier Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Fourth Revised Edition. 12mo of 455 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $1.50 net.

Already this work is widely known and appreciated. This new edition, while retaining all that was valuable in previous editions, presents a much fuller explanation of the principles which should govern in the selection of a dietary for infants. Many illustrations have been added while numerous alterations and corrections have been made in the text. Dr. Griffith's book is unique. It is serviceable not only to mothers and nurses but likewise to medical students and practitioners.

Diagnostics of Diseases of Children. By LeGrand Kerr, M. D., Professor of Diseases of Children at the Brooklyn Postgraduate Medical School. Octavo of 542 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $5.00 net; Half Morocco, $6.50 net.

Every practicing physician is familiar with the difficulties encountered in diagnosticating the diseases of childhood. Confined largely to the objective symptoms of disease, it is absolutely essential that they be correctly interpreted. The author has presented the subject in so thoroughly practical a manner that it will be a vast help to the practitioner in making an early diagnosis. Enough of etiology and pathology to be useful is given and under appropriate headings symptomatology is fully discussed. It is just such a work as has long been needed.

Surgical Diagnosis. By Daniel N. Eisendrath, M. D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Octavo of 775 pages, with 482 original illustrations, 15 in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $6.50 net; Half Morocco, $8.00 net.

Without a correct diagnosis it is impossible to undertake proper surgical measures for the relief of disease. Dr. Eisendrath, therefore, presents here a work planned with just this aim in view: The correct and speedy diagnosis of surgical conditions. He has taken great pains to differentiate simulating affections, so that the general practitioner and surgeon will find the work of the greatest value in their daily practice. The examination of each surgical disease or injury is taken up systematically and comprehensively, and in every case illustrated with original illustrations. Indeed all the illustrations are original and have been introduced for the purpose of aiding in a correct diagnosis. They are, therefore, thoroughly practical. Dr. Eisendrath's extraordinary clinical experience stamps the text with the same practical character.

Modern Surgery: General and Operative. By J. Chalmers DaCosta, M. D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Fifth Revised Edition, Enlarged and Reset. Octavo volume of 1283 pages, with 872 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $5.50 net; Half Morocco, $7.00 net.

DaCosta's Surgery need only be mentioned. Since its first appearance its excellence has been well recognized, standing as it does between the complete but cumbrous textbook and the incomplete compend. In this revised edition considerable new matter has been added, other portions have been altered and expanded. Many of the more recent surgical methods are included, together with a number of new cuts. Dr. DaCosta's ease of expression renders his book unusually attractive.

Transactions of the Homeopathic Medical Society of the State of New York. Vol. XXXIX, 1904; Vol. XL, 1905; Vol. L, 1906.

Transactions of the American Electro-Therapeutic Association, 1905.

Transactions of the Annual Meeting of the American Laryngological, Rhinological and Otological Society, 1906.

Transactions of the American Association of Genito-Urinary Surgeons. Vol. I, 1906.

The Veiled Lady, and other Men and Women. By F. Hopkinson Smith. Illustrated. New York: Chas. Scribner's

Sons, 1907. Price, $1.50.

A volume of short stories whose subjects are as varied as the writer's experiences. It includes houris and nightingales of the East, lovely Venetians, gay, rollicking Bohemians, rough sea dogs, well-groomed club swells, and half a dozen other types equally full of human interest. The illustrations, some of them by the author, form a very attractive feature of the book.

The Spider and other Tales. By Carl Ewald. Translated from the Danish by Alexander Teixeira De Mattos. Chas. Scribner's Sons, New York, 1907. Price, $1.00.

A series of short stories revealing the secrets of animate and inanimate nature in such a way as to touch the imagination of childhood and to entertain the adult reader.

Poison Island. By A. T. Quiller-Couch ("Q"). Chas. Scribner's Son's, New York, 1907. Price, $1.50.

A thrilling tale of treasure seeking carried on by a band of the quaintest and most original characters and described in a lively, humorous, and absorbing way.

The plot, although simple, is so contrived that the reader finds it hard to leave off until the story is finished. A battered old sailor has discovered and charted out an island in the Spanish Main in whose sands lie buried fabulous treasures. He confides his secrets to a youth who is the central character in the drama, and the two resolve to go out in search of the treasure.

The New Theology. By R. J. Campbell, M. A. The Macmillan Company, New York, 1907. Price, $1.50.

The author insists that he is able to say what he means and that the book is but an outline statement of his own personal views. While he does not object strenuously to his teaching being called "new," yet its fundamental principles are as old as religion itself. Its application to the conditions of modern life is new. The book does really contain a great deal that is interesting and the force of its teachings is not to be denied.

The Spirit of American Government: A study of the Constitution, its origin, influence and relation to Democracy. By J. Allen Smith, LL.B., Ph.D. New York: The Macmillan Co., 1907. Price, $1.25.

Professor Smith traces, in this volume, the influence of our constitutional system upon the political conditions which exist in this country today. The uncritical reader has perhaps never appreciated the fact that universal suffrage is inherently opposed by the Constitution. The spirit of this instrument is decidedly in opposition to Democracy. The author shows how the Democratic idea grew and likewise traces the origin of our political evils.

The American Idea. By Lydia Kingsmill Commander. New York: A. S. Barnes & Co. 1907.

A study of a grave social problem which has aroused a great amount of interest throughout the whole country. "Race Suicide" has become a theme of conversation and a subject of debate. Everywhere we are told of it. The author deals with the social causes which have brought about this state of affairs. She discusses the question fairly and impartially whether the determination of the American people to establish a small family ideal points to race suicide or race development.

Before Adam. By Jack London. With numerous illustrations by Chas. Livingstone Bull. New York: The Macmillan Company, 1907. Price, $1.50.

So much has been said of this story, of which it has been necessary to say so little. It has been called a fairy-tale of science, and that is a good enough term to apply. Himself a loyal believer in the theory of evolution, Mr. London has drawn on his wonderful imagination to construct a story which would be of great interest to all who, like him, accept the idea that we are descended from a Mid-Pleistocene Ape. He draws on the familiar dream of falling through space—the explanation of which, as given by scientists, is that to our prehistoric ancestors, who lived in trees, liability to falling was a constant menace. The shock resulting from such an accident resulted in a profound impression which caused molecular changes in the cerebral cells. These impressions transmitted to their progeny become racial memories which yet linger with us. This is but one of the scientific theories which the author utilizes as a basis upon which his fancy builds.

Abe Martin of Brown County, Indiana. By Kin Hubbard. With illustrations by the author. Bobbs-Merrill Company. Indianapolis.

A little volume of humorous remarks on a variety of subjects. It is full of mirth-provoking epigram in dialect. Meredith Nicholson, in his introduction, calls it a symphony in gingham.

The Brass Bowl. By Louis Joseph Vance. Illustrations by Orson Lowell. The Bobbs-Merrill Co., Indianapolis. Price, $1.50.

A story of a gentleman-burglar, whose close physical resemblance to the rich young fellow he tries to rob keeps the police guessing. The situation is complicated by the attempts of a beautiful young woman to gain possession of certain papers which

threaten the good name of her father. One doesn't want to put the book aside until the story is finished. The illustrations are good and the binding very attractive.

Congressman Pumphrey, The People's Friend. By John T. McCutcheon. With cartoons by the author. Bobbs-Merrill Co., Indianapolis.

This is a new book of drawings by one of America's most famous cartoonists, showing him in his funniest vein and representing his happiest achievement. The pictures are accompanied by a running fire of commentary which forms in continuous narrative an intensely amusing social and political satire.

The Miracle Worker. By Gerald Maxwell. Frontispiece by Geo. F. Gray. John W. Luce & Company, Boston. 1907.

A remarkable story, the chief character of which is Ahmed Khan, son of a Prince of Afghanistmn and first assistant to a great Leipzig surgeon. Ahmed alone with his Mohommedan fatalism and Oriental cunning makes the story possible. The plot turns on a fanciful operation which at least has a basis in experimental truth. Nevertheless the book is evidently the work of one who has imbibed freely of physiological experimentation, anatomical fact and surgical technique. A charming love story—the usual romance of doctor and nurse—runs through the book, she finally leaving home and family to go with the young surgeon back to his native land where he becomes ruler of his people. The daring intrigue and deception practiced by the chief actor in substituting for the Grand Duke's wife, who has sustained a terribly disfiguring injury, a woman who really is a condemned criminal but in physical appearance so like the countess that even the husband is successfully deceived makes "The Miracle Worker" a book of thrilling interest.

A Practician's Hand-Book of Materia Medica and Therapeutics, based upon established physiologic actions and the indications in small doses. By Thomas S. Blair, M. D. Over 250 pages, bound in limp library cloth. Price, $2.00 net. Published by The Medical Council, 4105 Walnut street, Philadelphia, Pa.

Dr. Blair, a regular physician of very high standing in his profession, has made a close study of the materia medica and therapeutics of each of the sectarian schools.

The methods of obtaining the medicinal qualities of the various plant drugs are given, showing that our regular manufacturing pharmacists prepare some of them in a reliable manner, while the Eclectic and Botanic manufacturers prepare others better, and still others are better prepared by the homœopathic manufacturers.

The subject of dosage is most carefully regarded. Many drugs have an apparently different action in the large and the small dose. These are all differentiated, and where small doses are best they are recommended. Physiologic effects of the large dose, medium dose and small dose are given for each drug, and therapeutic deductions are drawn therefrom. The homœopathic infinitesimal dosage is discussed and its fallacy shown, although many homœopathic remedies are very efficient when used in the proper appreciable doses—and when effective they are always used that way. This book does not stir up prejudice, but clears up many of the difficulties in the way of a truly rational and, above all, a *highly successful* practice of therapeutics. The philosophy of therapeutics that underlies the discussion of every drug will make the reader a better judge of remedies, and what should be expected of them. The confident, hopeful spirit, which runs like a thread of bright color all through the book, based upon the author's successful experience, will encourage the reader with a renewed promise of better results in his daily work. This book will become a desk companion for frequent consultation.

The President of Quex. A Woman's Club Story. By Helen M. Winslow. Illustrated by W. L. Jacobs. Lothrop, Lee & Shepard Co., Boston. Price, $1.25.

"Quex" is the fictitious name of a thoroughly up-to-date club, and the story is of a young and beautiful woman suddenly bereaved of all she loves in life, and changed to a recluse in her fine home, to whom the presidency of Quex comes as a revelation and brings a new and larger life. The development of her character from loneliness and weakness to joyous activity and strength is a study to be followed with great profit. Under the leadership of the president and her loyal supporters, Quex becomes a power for social betterment that even a legislature must reckon with, and is especially efficient in respect to that blot upon our civilization, child labor. It comes at a time when the attention of the whole country is focussed upon that very subject and shows what women's clubs may do in beneficial civic lines. The faithfully mirrored internal politics of the club add great piquancy to the story. But far from being a didactic treatise on industrial or other social conditions, or a mere recital of club affairs, it has a charming romantic interest, with two love stories involving prominent characters, and a vivid presentation of a modern bachelor

maid and bachelor man. Indeed, the book is as capable of interesting an intelligent man as it is the women for whom it is especially written, and who will welcome it. No sweeter, saner, or more lovable heroine appears in modern fiction than the "President of Quex."

The sixteen admirable full-page drawings by Mr. Jacobs are especially happy in interpreting the story, and the general make-up of the book is very attractive.

Transactions of the Medical Association of Georgia. Fifty-sixth Annual Session, 1905. Louis H. Jones, M. D., Secretary.

Cigar Picker Etiquette in Paris.

While you who are acquainted with the tourists' Paris have sometimes sat on the terrace of a cafe sipping your afternoon refreshment after a round of sight-seeing, you may have noticed a miserably-dressed man prowling about in so strange a manner as to elicit from you the exclamation: "What *can* he be doing?"

Every now and then he swooped earthward, snatched at some object which he stuffed into his pocket or into a bag hung by a cord around his neck.

He is the *ramasseur de bouts de cigares*.

Tobacco is, as it will be remembered, a government monopoly in France. The "cigar picker" is the man who makes a living by gathering up all the half-smoked stumps he finds in the street. With the tobacco collected from these remains he prepares packages which, if perhaps a trifle questionable, at all events sell for a fairly good price on the Place Maubert, where this especial unlicensed industry is exercised. Sometimes, it will be observed, the tobacco "picker" has in his hand a stick with a sharp point at the end, wherewith more easily to secure, as he passes, his prey. This point is considered a modern indignity. It is classed by the traditional tramp as one of the up-to-date and inelegant appliances which vulgarize all occupations. The real aristocrat among the "pickers" declares to you in a tone proud, if not haughty: "I, sir, I work with my hands."

The *chiffonier*, or rag-picker and ashman, has, of course, a legal right to exercise his profession. But there is the tramp again, unlicensed and without official approbation, who dabbles in this line as well. His expression, when you ask him if he be a *chiffonier*, is: "No, sir, I am a rag-picker. I merely occupy myself with rags!"—Mrs. John Van Vorst in *June Lippincott's*.

Abstracts of the Leading articles of the month.

Treatment of Sciatica.—The following is taken from the Monatschrift fuer Orthopaedische Chirurgie und physikalische Heil- und Untersuchungsmethoden, No. 4, April, 1907, beilage zu Deutsche Medizinal Zeitung March 25, 1907, of Berlin, under the title Behandlung der Ischias von Dr. E. S. McKee, Cincinnati, and is abstracted from the original in Blatter fuer Klinische Hydrotherapie, February, 1907, of Vienna.

First a calomel purge then salts; in constitutional disease as soon as possible introduce treatment for the cause, caution with morphine, in rheumatic cases salicylate preparations, in syphilis iodides, in gout colchium and saline mineral waters.

Hypodermic injection of sterilized air. First sterilize the immediate cutaneous region, then insert a sterilized Pavaz needle into the skin and connect with a thin rubber tube which is again connected with a glass tube containing a bit of sterilized cotton, and then one drives by means of a rubber balloon the air slowly under the skin. Naturally, care must be taken that the Pavas syringe needle be not run into a blood vessel, which easily occurs. Gentle massage should follow this procedure till the air is all absorbed. The rest cure of Wier-Mitchell is in some cases very successful, especially in those where their means of livelihood has been an active one. Massage along the nerve, though quite painful, often breaks up adhesions, which are the cause of the disease in many instances. It is a rule, however, that in true neuritis massage is not followed by good results. Massage, and especially mechanic vibrations, are of especial worth in chronic cases with beginning atrophy.

Hydrotherapy systematically used deserves due consideration. The wet pack over night diminishes the pain remarkably as well as having a favorable influence on the neurotic process. The next morning the leg is unpacked, washed with warm water and massaged. Ten or twelve of these applications are usually sufficient. In subacute cases the half steam bath is of service. Patient sits in a steam container which reaches only above the hips. This half steam bath does not weaken the patient and allows of a higher temperature, 44 deg. C. can be endured for 10-15 minutes without discomfort. Afterwards the patient is put in a bath of 35 deg. C. for eight minutes and douches the diseased hips with water at 40 to 44 deg. C. This procedure can also be combined with swimming baths

and very often the drinking of large quantities of water is advisable.

Electrotherapy, galvanic current direct on the nerves 4-8 minutes, highest, 3 to 5 milliamperes. Also the interrupted galvanic current stimulates the muscles in a mild way, holds the tissues in a good condition and prevents atrophy. The static (Franklin) douche with positive pole on the painful part is followed by good results. The apparent anodyne action of Faradism in sciatica is due to its alterant action on the muscular tissue and through that on the circulation. The current dare not be increased to painfulness.

Surgical Treatment.—In long standing one is often lead to make an exploratory incision, lay the nerve bare, and separate some adhesions. In bloody nerve stretching, we find good and bad experiences. This operation is directly contraindicated where neuritis is present, as in these cases myelitis not infrequently follows. There is also a so-called bloodless nerve stretching wherein the patient is under ether, the thigh is forcibly flexed on the hip-joint with the leg extended at the knee, which position is maintained for some minutes.

The cure is easier when the patient is not too old and does not suffer from other diseases. The principle thing in the treatment consists in the careful observation of the patient, so that nothing is overlooked. The physician shall at once in the beginning commence with a systematic cure and if it does not go forwards seek for his failure, for failure lays somewhere certainly. Exact diagnosis of the condition of the patient is the first and last means of treatment.

Pyrenol in the Treatment of Influenza.—Braeunig (Berliner Klin. Wochenschrift) finds in hospital and private practice that pyrenol reduces the temperature and leads to a rapid termination of the process free from complications. Similarly it acts as an antipyretic and sedative in pertussis, also influencing the diseased mucosa, and thus fulfills two indications at once. He specially emphasizes the absolute harmlessness of the remedy, even with children of less than one year.

Braeunig adds that the paper tells nothing new, for the beneficial effect of pyrenol in these diseases is well known. He also has found it to do good service in similar cases, as well as in the hectic fever of phthisis in which—given at the right time—it forestalls the high evening temperatures, without causing the very annoying diaphoresis which follows the use of other antipyretics.

The Existence of a Fat-splitting Ferment in the Gastric Juice.—London (Ztschr. f. physiol. Chem.) recently examined the gastric juice from a dog with a pyloric fistula, in order to determine whether there is a fat-splitting ferment or lipase present or not. Such a ferment has been described by Stade, Laqueur, Bickel, and others; but doubt has been expressed by many workers on this subject as to its presence in the freshly secreted juice.

Perhaps the more general belief has been that, in cases where a lipase has been detected, its presence has been due either to bacterial action or to the backward passage of pancreatic juice.

The author has taken precautions to avoid any such admixture, and has found that the pure gastric secretion has but little effect upon fats. If special care, however, be not taken in making the fistula and arranging the cannula, there is always a well-marked fat-splitting action. With gastric juice obtained from a fistula where the ordinary cannula was employed, about 17 per cent. to 23 per cent. of the fats in the yolk of an egg were decomposed. If, on the other hand, a cannula were employed, divided in such a way as to prevent any duodenal contents mixing with those of the stomach, the juice obtained showed only slight fat-splitting properties.

In the juice obtained from Pawlow's "small stomach," the fat-splitting action is also slight, namely, from 2 per cent. to 5 per cent.

Partial Removal of Gastric and Intestinal Musculature.—Muller (Arch. f. d. ges. Physiol) has investigated the effects produced by disturbances in the musculature of the stomach and intestines, and has arrived at the following conclusions: Partial removal of the musculature of the stomach leads not only to a very great weakening in its important motor functions, but also to very marked disturbances in secretion. These latter effects are of the nature of a hyper-secretion and especially of a hyper-acidity, free hydrochloric acid always being present. In similar operative interference with the musculature of the small intestine, there are practically no symptoms of disturbance. The *vis a tergo* is sufficient to drive along the food material past the paralyzed portions of gut, and thus there is no retention and none of the signs of intestinal obstruction. He believes that the subject of ileus paralyticus requires revision, the obstruction in this and similar intestinal disturbances not being necessarily due to the paresis of the musculature. The operative procedure was devised by Professor Kreidl of Vienna.

Uterine Sclerosis in Pregnancy, Menstruation, and Ovulation.—Pankow (Arch. f. Gyn.) has examined fifty-five uteri with reference to the sclerotic changes that occur in physiological processes in the uterus and ovaries. These, in the main, involve the smaller arteries of the meso- and endometrium. There are increase and change in the elastic fibers of the vessel walls, hand in hand with the changes in the elastic fibers of the uterus itself. These changes are seen only in uteri of women who have borne children. Age plays no part in them, as they are found in young women. The arteries as well as the veins are affected, but the changes are not the same in the different layers of the uterine wall. The large vessels near the serous coat are very little altered. Those of the inner half of the uterine wall suffer the greatest change. Similar changes are found in less amount in the mucosa of uteri of virgins after menstruation. These changes occur only in periodic conditions, in which there is a marked congestion of the organs, followed by a hemorrhagic process. They differ from those of senile atrophy, since, in the latter, the changes affect the larger vessels especially.

Serum Diagnosis and Serum Therapy in Cerebro-spinal Meningitis.—Jochmann (Deutsche med. Wchnschr.) studied about thirty different specimens of the meningococcus obtained from different sources. Some were found to kill guinea-pigs on intraperitoneal injection of certain doses (3 mgrms.). By means of these virulent races he immunized a horse by first injecting dead microbes over a period of several months, and then living microbes, the injections being made subcutaneously and into the veins. After a time he found that the serum agglutinated the germ in a dilution of 1:1500, and by this means he could distinguish with certainty the true meningococcus from germs which resemble it. Further, this serum could, in certain doses, protect both mice and guinea-pigs from varying multiples of otherwise lethal doses. The author tried the serum upon forty people. In doses of 10 c.c. it had no effect, but in doses of 20 to 30 c.c. frequently repeated, it produced obvious improvement, particularly when injected into the vertebral canal. The writer says that much good would be done by injecting subcutaneously 20 c.c. of the serum into all persons who come into contact with patients suffering from this disease, both as a prophylactic and to prevent them becoming meningococci carriers.

Postpartum Leucocytosis with Contemporary Splenectomy.—Penkert (British Gynecological Journal) reports the following case: A primipara, aged thirty-eight, at the beginning of her labor sent a revolver bullet into the left side of her thorax. After perforation and extraction of the dead child her abdomen was opened, and it was found that the ball had wounded the stomach in two places, the spleen in three, and the diaphragm in one; the wounds in the diaphragm and stomach were stitched up and the spleen extirpated. Immediately after the operation the leucocytosis was 34,300, the hemoglobin 40 per cent. During her convalescence, which was uninterrupted, the leucocytes decreased to 7400, and the hemoglobin rose to 65 per cent. Six weeks later the normal proportion (1 to 420) of white to red cells had been re-established.

Retention of the Membranes.—Rissmann (Monatschr. f. Geburtsh. u. Gynaek.) mentions the importance of complete removal of the secundines after labor. This may frequently be ensured by firm pressure on the uterus. When twenty-four hours have elapsed after labor, and the membranes are not entirely removed, this should be done instrumentally. Sepsis, subinvolution, and hæmorrhage may occur if a portion of the membranes is left in the uterus. He recommends that the uterus be massaged till contraction is satisfactory, and kept up by the pressure of a sand-bag. If fragments of membrane are not thereby detached, instrumental removal becomes necessary. Retention is less frequent when the third stage is allowed to be prolonged, whereas it is frequently met with when Crede's method is employed.

The Imbedding of the Impregnated Ovum in the Ovary.—Schickele (Naturforschervers, Stuttgart) adds to the two very early cases of ovarian pregnancy studied by Van Tussenbroek and Franz, a third in which the manner of implantation of the ovum in ovarian tissue could be clearly followed. Van Tussenbroek's case was apparently one in which the ovum lodged in the ruptured follicle and there developed the intrafollicular type. In contradistinction to this form is the epovarial, of which the cases of Franz and his own are examples, in which the ovum lodges in some groove or furrow on the surface of the ovary and finding there suitable nutrition, eats its way down into the ovarian stroma. The author could see in his sections the implanted ovum lying side by side with, but distinct from, the corpus luteum.

Two Cases of Fibro-Sarcoma of the Abdominal Wall.—Bidwell (West London Med. Jour.) describes several cases.

Case I occurred in a woman of 36 and

had been growing during 18 months, during which time she was delivered of a child. The tumor was found to occupy the right inguinal canal and to have developed from the fibres of the transversalis muscle. It was exsected successfully.

Case II occurred in a woman of 33 and sprang from the posterior sheath of the right rectus muscle. The growth was the size of a small pear and was successfully removed.

Both tumors proved to be fibro-sarcoma and seemed to have same relation to pregnancy.

Antisclerosin Method of Administering the Blood Salts.—Senator (Russische Med. Rundschau) says that antisclerosin is the simplest and most convenient method of administering the blood salts, the use of which is based on the work of Dennstedt-Rumpf and Ludwig Weil. The antisclerosin tablets contain chiefly sodium chlorid, as also sodium sulphate, sodium phosphate, sodium carbonate, magnesium phosphate and calcium glycerophosphate—all in about the proportions in which they are normally present in the blood. The initial dose is two tablets daily and is gradually increased to six daily. If the dosage is slowly increased, the antisclerosin is well borne. Though the casual relation of salt impoverishment of the blood to arteriosclerosis is not yet wholly explained, salt impoverishment is certainly an abnormal condition. The careful employment of the blood salts can only be of benefit.

Actinomycosis of Abdomen.—Friedrich (Deutsche med. Wochenschrift) finds that 4 per cent. of the 200 patients operated on at Griefswald during the last three years for typhlitis were suffering from an infection with the actinomyces. Of the eight patients who were treated by the removal of all diseased tissue, the incision extending into the healthy parts, seven are at present in apparent good health. The experience in former cases has been that the condition is liable to recur five to six years after two to three years of apparent cure.

Intraneural Injection of Cocaine.—Vogue (British Medical Journal) injects cocaine into the trunk of the inferior dental nerve for the extraction of teeth from the lower maxilla. The operation is carried out by means of an ordinary Pravaz syringe, at the level of the buccal sinus, and he has found it completely successful in two-thirds of his cases. Anesthesia has lasted about twenty minutes, and no ill effects have been observed.

Late Rickets.—Schmorl (Deutsches Arch. f. klin. Med.,) says the bendings and deformities of the bones observed during the later years of growth independently of rickets occurring in childhood, have been regarded as either osteomalacic (von Recklinghausen) or ricketty (Mikulicz) in character. There is a great want of definite evidence to confirm either of these views.

The writer gives four cases of late rickets, observed by himself, in detail. He is unable to be certain that they are not cases of infantile rickets relapsing later, but thinks this improbable. Two were females aged 18 and 21; two males, 19 and 9; they died from various acute infections, and he examined their skeletons both macro- and microscopically. The bones in general were little bent or distorted; but the bony tissue was abnormally soft, and the endochondral ossification at the anterior ends of the ribs was proceeding irregularly, over an unduly large area, and with absence or defect of the preparatory calcification zone at the edge of the cartilage capping the bone; the zone of proliferation here was also abnormally vascular. The lesions were, in fact, identical with those seen in infantile rickets. And in all the bones of late rickets examined, the author found small scattered areas of non-calcified osteoid tissue throughout the calcified bony tissue. Hence rachitis tarda, like rachitis infantum, is a disease of the whole osseous system. He also argues that his four cases are not early examples of rachitis tarda, because, though the rib cartilages showed comparatively little change, this osteoid tissue was present in large amount. He says that the question whether late rickets is a ricketty or an osteomalacic phenomenon is indifferent, now that one can no longer uphold the old distinction between the two, which stated that the osteoid tissue in rachitic bones was newly-formed uncalcified bone, while that in osteomalacia was decalcified bone tissue (halisteresis). The important distinction between rachitis and osteomalacia is this, that the endochrondral ossification is disordered in the former, but remains normal in the latter. The writer notes that Morpurgo has produced an epidemic of what he calls osteomalacia in white rats; other rats infected with this are said to have exhibited osteomalacia if adult, rachitis if newly-born.

The Diagnostic Significance and Therapeutic Value of Lumbar Puncture in Infantile Tubercular Meningitis.—Cozzolino (Riv. di clin. Pediatr) after a study of eleven cases, arrives at the following conclusions: (1) Cytological examination of the cerebrospinal fluid in infantile tubercular meningitis is a useful diagnostic aid, but has not the pathognomonic value attributed to it by Vidal and Ravant. (2) Polynucleosis is not an infrequent occurrence in basic meningitis; it may be found

not only when Koch's bacilli are present (Concetti), but also when they are absent (Comba-Cozzolino) or when they are found in small numbers (Comba); in the two latter instances, however, the polynucleosis is much less marked. (3) Polynucleosis being found two to four days before the death of the patient cannot be ascribed to that event as stated by Torday and Berthier. (4) In every case, especially in those where it gives a doubtful or unexpected result, cytological examination must be taken in conjunction with other diagnostic signs, such as the formation and appearance of the reticulum, the quantity of albumin, the presence of substances which reduce copper salts, and inoculation into animals. (5) The force with which the fluid issues has only a relative diagnostic value. (6) Concerning the therapeutic value of lumbar puncture, the author agrees in the main with Concetti and Marfan, that in rare instances only it affords a slight and transient relief to the symptoms. In one of the cases the marked improvement noticed after the fourth puncture must probably be attributed to the tubercular antitoxin injected into the spinal canal. (7) Lumbar puncture is therefore indicated in tubercular meningitis as a diagnostic method in doubtful cases, and although usually harmless, it may at times, as Concetti asserts, hasten the course of the illness to a fatal termination.

Early Signs of Tuberculous Meningitis in Children.—W. H. Summons (Intercolonial Med. Jour.) says that cases of tuberculous meningitis may be classed in two divisions: (a) those where a pre-existing tuberculous focus is known to exist; (b) those where there is apparent health till symptoms appear. Under (a) should be included cases of tuberculous meningitis subsequent to tuberculous bronchial or mesenteric glands, joint or spinal mischief, tuberculous skin lesions with adjacent glands affected. With the exception of bronchial glands, considering the number of cases noted, meningitis is rare in this division, and when it does occur, the mode of onset is usually rapid, as is shown by the three following cases: 1. A boy, nine years, with an old spinal caries, which was regarded as cured, was admitted to hospital with apparently an acute pneumonia—the onset was so raipd, and all the symptoms at first pointed to the respiratory sustem. Next morning he was semi-comatose, and progressed as a tuberculous meningitis. The autopsy showed generalized tubercle. 2. A girl, 10 years, with a much deformed tuberculous spine, was brought some distance in a cab, and in hospital was examined several times. Without warning she began to vomit frequently, which, with abdominal pain and constipation, almost looked like intestinal obstruction. Very rapidly, however, definite signs of further meningeal irritation became evident. 3. A boy, eight years, who had been in a double Thomas splint for two years, the first week after being allowed out of it fell off a table, and within forty-eight hours had severe headache, photophobia, vomiting, and frowning. He died within ten days of general tuberculosis. Not always is the mode of onset so rapid, as for example, a child, under Dr. Robertson's care, who recently died in the Austin Hospital. She was 13 years old, and had a tuberculous hip for three years. Gradually she became dull, would not talk, became rigid, and lay in a semi-comatose condition for four months before death. Fro mthe observation of many cases, the rapid mode of onset and progression of symptoms are the more common in this division.

Under division (b) must de included all other cases—most cases with tuberculous bronchial glands, tuberculous otitis, obscure abdominal tubercle, etc. These cases frequently present great difficulties from a diagnosis standpoint. The modes of onset in this group of cases may be divided into at least five classes: (1) Change in Demeanor.—Of all the early symptoms, this is one of the most important. When a mother comes, stating her child is "different," and "seems strange," it is always wise for the medical attendant to be careful, and not to say it is an over-anxiousness on the part of the mother. Many cases of tuberculous meningitis start this way, and it may be 7 to 20 days before definite signs show themselves. (2) A Convulsion.—This is the first symptom noticed and may be taken as the mode of onset in about 8 per cent of cases. The convulsion is general in many instances, but when limited to one extremity is, of course, more suspicious. After the convulsion there are usually definite signs to be found. (3) A Slow Oncoming Drowsiness After Pertussis or Measles.—Some of these cases have give the signs of enlarged bronchial glands, and in nearly all, the primary seat is a caseous bronchial gland. The patient is drowsy, wants to be let alone, lies about, dreads the light, and complains of headache. There is often a loud-sounding cough. (4) With Signs of Intra-cranial Tumor, as (a) where a child presented the classical, general

signs and symptoms of brain tumor without focal ones for 10 weeks. She had extensive tuberculous mischief at the apex of the right lung, and ultimately died of general tubercle. On a post-mortem examination, five small tuberculous granulomata were found in the brain. (b) Where the case appeared to be an intra-cranial tumor localized to the right cerebellum. The patient was trephined over both cerebellar regions without any tumor being discovered. He died shortly after the second operation. On autopsy, no granuloma was present, simply an extensive miliary tuberculous sowinf, with dilation of the ventricles, being found. (5) Like Typhoid Fever.—The child slowly becomes dull and apathetic; the temperature gradually rises like the Wunderlich rise of typhoid fever. The case is one of general tuberculosis, with the meningeal irritation manifesting itself late.

The Stages of Tuberculosis in Children.—Huntinel and Lereboullet, in the Brit. Jour. Children's Diseases, find that the first stage often develops at a very early age, usually in the mediastinal glands, more rarely in the mesenteric, where it remains latent. The mode of entry is pulmonary, digestive, cutaneous or otherwise. This tuberculosis may remain latent indefinitely or become attenuated; it even seems in certain cases to confer a kind of immunity against further attacks. These are the favorable cases which end in more or less complete cure, as proved by the frequency with which tubercular foci are found at the autopsies made at the Enfants-assites (more than one-third of the cases), and by the fact that there were only 19 phthisical children among 18,000 that were sent to live in the country. In other cases nutritional disturbances occur, the so-called pre-tubercular state is established and instead of protecting, it predisposes to a further and more serious tuberculosis. This second stage is either an auto-infection, often excited by some intercurrent affection such as measles or whooping-cough, or is the result of a fresh access of tubercle from without, to which the debility caused by the latent tubercle renders the patient more vulnerable. It may then develop as either an acute, sub-acute or chronic affection. As it is curable it may sometimes become quiescent until fresh causes start a third stage similar to the second. This hypersensibility to attacks of the bacillus is comparable to that of certain serums and toxins (anaphylaxis), in which certain substances—"aggressines"—are formed in the exudation produced by the latent tubercle which precent phagocytosis upon freshly inoculated bacilli. This evolution of infantile tubercle by stages is comparable to what occurs in other chronic affections such as syphilis, glanders and especially leprosy. It is thus important not only to prevent tubercular contagion (the effects of which act equally on those free from and the subjects of latent tubercle); but also to strengthen the organism to defend itself against attacks of the tubercle bacilli, which too frequently exist there already.

Iodism.—Pouchet (La Clinique) defines by term iodism a group of toxic phenomena induced by the administration of iodides. Toxic doses of iodine induce an exaggerated transudation of the liquid-blood elements, such as is facilitated by certain accessory conditions—concentration of the solution employed, rapidity of absorption and slowness of elimination. The final reabsorption of the transuded liquid would account for the disappearance of the toxic phenomena. Here, however, we must reckon also with the individual's susceptibility; for the intensity of the toxic effects is not always comparable with the amount of iodine administered. There are two distinct kinds of phenomena displayed. One set is localized and due to direct irritant action; the other is generalized and results from the dissemination of iodine throughout the body. The commonest evidences of iodism are a catarrhal condition of the nasal and orbital mucous membrane, with more or less violent headache; the conjunctivae may also be red and oedematous. These phenomena are grouped by the writer under the term "coryza iodigne." Sometimes there is also a little fever, due, no doubt, to the catarrh. There is a metallic taste with increased flow of soliva. Skin eruptions are frequent with iodism. Acne is most common, but urticaria, papular and bulbous rashes are also found. Some anorexia is present; nausea and vomiting may occur; there are often severe epigastric pains; diarrhoea or constipation may exist, as also a pulse accelerated, feeble and easily compressed. Respiration is generally but slightly affected; and there may be dyspnoea and even asthma and stridulous laryngitis. Oedema glottides may occur, while haemoptysis is common in tuberculosis subjects. The kidneys may become affected, especially in women and children; in the latter albuminuria may follow simply upon painting the skin with

iodine. Nervous symptoms are frequent—headache, apathy, prostration, faintness, sensory disturbances and even delirium. The writer notes the effect of iodides on glandular organs, especially the testicles, ovaries and mammae. The autopsy in the only case of iodism he can find recorded reveals congested kidneys (especially the medullary substances, the cortical epithelium appearing to be healthy). Before death a small amount of albumin appeared in the urine; the cerebro-spinal system and the heart and lungs (except for a slight hypostatic congestion) appeared normal.

The Liver in Heart Disease.—Salaman, in the London Med. Lancet, says that under conditions of cardiac distress the liver will draw off a large volume of blood from the right auricle. After a time changes will take place leading to fibrosis, very materially affecting the distensibility of the liver. This fibrotic process, by increasing the force of the liver's recoil, prevents the use of the latter as a reservoir for accumulating blood. In complete compensation there is no engorgement of the liver and no bacq pressure. While the liver may be looked upon as a sponge-like safety valve to the heart, continued use of its safety valve leads to its own abolition. The liver may directly or indirectly cause three kinds of pain; referred superficial tenderness consequent upon extreme distension of the organ; tenderness on palpation of the liver itself; the liver itself is painless; but the whole abdominal surface is tender on deep pressure, due to distension from ascites and peritoneal irritation. With the onset of carbiac distress the liver comes to the rescue and enlarges up to its physiological limits without giving signs; then, as enlargemen exceeds this limit, referred pain appears. When the blood thus draws off in the fully distended liver is insufficient to relieve the heart failure the blood is thrown back in the inferior vena cava, and oedema of the feet results. If the heart is relieved and the liver allowed to disgorge some of its blood and to return to the limits of its physiological safety valve action, the oedema disappears.

Contusion Pneumonia.—Litten (Deutsche Medizinische Wochenschrift) discusses this form of pneumonia, of which a considerable number of instances have been described, and which differs from the so-called traumatic pneumonia, in that there is no wound of the lung by the penetration of objects from without. The injury is due to a blunt force and produces a sudden and extensive compression of the pulmonary tissue. No evidence of any injury can be detected on the outside of the chest, although this may have been sufficient to have caused a complete tear of one of the lobes of the lung. Ecchymoses are more likely to be found in cases where the lungs have escaped injury. The pneumonia need not necessarily occur at the site of the external injury, but may take place in the opposite side of the chest, and if there are any old adhesions or tubercular foci present these act as a locus minoris resistentiae. The lesion is most often the result of a fall from an elevation, but it may also be produced by a severe blow, by compression, or by being run over. Another cause to which particular attention is called is the lifting of heavy weights, an instance of which he reports in the present paper. A man engaged with a number of others in lifting a heavy truck was soon after seized with severe pains in the chest, and was prostrated. Two days later pneumonia was diagnosed, and within five days the man was dead. Three other similar cases were previously observed by the writer, from which it appears that the cause referred to is an important factor in the etiology of the condition. The chief characteristic of this form of pneumonia is its sudden onset, brief course and high mortality rate, for as far as can be determined from the cases thus far reported the latter is apparently about 68 per cent.

Anesthesia — Prevention of Vomiting.—Wanietscheck (Prager medicinischer Wochenschrift) discovered that the internal use of alypin, one of the newer local anesthetics, would entirely present the nausea and vomiting following the use of ether and chloroform.

Just before beginning the administration of the anesthetic the patient is given 5 to 6 drops of a five-per-cent solution, and this dose is repeated as soon as the patient is sufficiently recovered to swallow. This usually prevents all nausea, but it there is a tendency to it the dose may be again repeated in one or two hours.

Latent Appendicular Alterations in Cases Cured Medically.—Fiori, in La Riforma Medica, describes cases of appendicitis that were supposed to have been cured by medical means in which there were continuous symptoms that indicated that the cure was only apparent. In three of the patients the symptoms were slight, while in the fourth they were of severe nature. In the slight cases the symptoms lasted but a

few days, while in the severe one treatment extended over a month or more. In the slight cases the recurrence occurred in tow or three months after the first attack, and attention is called to the dangers of operation in the interval and the inadvisability of allowing the patient to believe himself entirely cured when the cure is only apparent and operation may be needed at any moment. Late observations demonstrate the accord between the clinical symptoms and pathological findings and the advantages to be derived from examination of the blood.

Poisoning by CO and CO2 and Pneumonic Infections.—Biondi and Leoncini (Rivista Criticica di Clinica Medea) having observed two cases of accidental poisoning by CO and CO2, in which a pneumonic infection was precipitated by the poisoning, have experimented on dogs to ascertain whether there were evidences that the asphyxia produced by gas poisoning contained for some hours would so reduce the resistance of the tissues as to render them peculiarly susceptible to the action of the pneumonococcus. The animals were subjected to inhalations of CO and CO2, and afterwards injections were made into the trachea of a moderately virulent culture of the bacillus of Fraenkel. The conclusions at which they arrived were that both of these gases so reduce the resisting power of the lung tissues as to make the animal an easy prey to the infection. Animals treated by the same injections without gas poisoning did not take pneumonia.

The Rontgen Ray Treatment of Exophthalmic Goiter.—Freund (Munchener medizinische Worchenschrift) states that the medical treatment of this condition is to be preferred to surgical procedures and that he believes the x-ray treatment to be the most satisfactory of all. The writer describes five cases in which either great improvements or an apparent cure was effected by this means. In three of the cases no other remedial measures were employed, so that the complete relief of the symptoms that resulted must either be attributed to the action of the rays or it must be taken for granted that the condition had undergone spontaneous retrogression, the latter being an assumption which the writer does not believe is justifiable. In another case the smyptoms disappeared only after the radiotherapy had been begun, and in the fifth case, although great improvement in the subjective conditions had been effected, the ultimate result is not yet certain. He believes that the Rontgen rays fulfill the causative indications in exophthalmic goiter, since they cause the abnormally active typhoid gland to diminish in size. They always exert a beneficial influence on the body weight and on the nervous manifestations, while the other symptoms, such as heart murmurs and exophthalmos, may also be caused to disappear. The prognosis is best in dealing with soft vascular goiters, which may completly subside under the treatment, while in the cases with hard nodular growths this is less likely to occur. The effects are more satisfactory the shorter the duration of the case has been.

The Galvanic Current of High Intensity in Trigeminal Neuralgia.—Blasi, (Annali di Elettricita Medicale Terapia Fisco), after having tried the continuous current of ordinary intensity in trigeminal neuralgia, and found it successful in obtaining a cure only in the slighter cases, began the use of a current or high intensity, used with great care to prevent any shock due to interruption of the current. He says that the best of results were obtained in the exceedingly severe cases that are not relieved by any other form of treatment and that render the life of the patient unbearable. The apparatus in use must be capable of giving a current of very high intensity, but of the greatest smoothness. The ordinary machines are useless for this form of treatment. The current must be increased very smoothly and gradually and reduced in the same way. The positive pole is placed oved the painful point or over the entire surface supplied by the trigeminus, and should be a large flat plaque. Several thicknesses of gauze must be placed over the skin so as to prevent electrolytic effects on the skin. The sittings should be from twenty to thirty minutes long when the current is very intense, or of one hour if of less intensity. It has a calming, paralyzing action on the nerves. In the neighborhood of the electrode there develop by secondary action acods which act on the ultimate ramifications of the sensitive nerves, diminishing irritability.

Hysterical Tachypnea with Organic Respiratory Affection.—Candela (Giornale Internazionale delle Scienze Mediche), says that in hysterical cases the severe symptoms frequently appear to be due to organic causes. This is especially so with respiratory symptoms. Hemoptysis, dyspnea, and tacypnea may occur. Hysterical hyspnea is due to four causes—

spasm of the glottis, paralysis, or contracture of the diaphragm, spasmodic condition of the bronchi, and thoracic hyperesthesia, or gastric disturbances. These symptoms supervene in debilitated persons. Glottic spasm is not rare, and is so severe in some cases as to necessitate tracheotomy. The attack comes on suddenly, with frequent, shallow respiration, and incomplete movements of the abdomen. The patient cannot speak or swallow, but is conscious. The pulse becomes quick and the extremities covered with cold sweat. In paralysis of the diaphragm there is retraction of the epigastrum and hypochondrium and absence of abdominal movements. Spasm and contracture of the diaphragm is rarer. It may be chronic, or in the form of hiccough, and vomiting may occur. Tachypnœa should not be confounded with dyspnœa, as the first may occur without the second being present. The patient breathes very rapidly without any difficulty of respiration, and while lying quite calm and comfortable. Respirations may be as fast as 180 to the minute, and attacks may appear several times a day and last for some hours. Temperature and pulse will show no variation. Suggestion or distraction of the patient's mind will stop the attack, and it disappears in sleep. He describes a case of this kind in which the hysterical symptoms had continued for some time in a man, when an organic disease of the pleura supervened which caused his death.

Maniacal Chorea.—Faring (British Med. Jour.) discusses the history of this particular variety of chorea in medical literature. He describes a case in a girl of seventeen years, the most important features of which were as follows: Rheumatic pains in the legs for a fortnight, upon which chorea supervened. A mitral systolic murmur, audible on admission, of varying loudness, and losting up to the ninth day—the day of her death. The pulse quiet and regular, about 80 each day up to the last three days, when it rose to 110, 130, 140. The temperature normal or subnormal until the day before dath, when it touched 103.4 degrees. The choreic movements were slight for about forty-eight hours, and then became so violent that two special nurses were required to wach her and prevent her from falling out of bed and from striking her limbs against parts of the bed. (The idea of treating her by placing her matress on the floor, with pillows around, was considered, but discarded in favor of the bed with nurses at either side.) The psychial phenomena were prominent, out of all proportion, and at first quite overshadowed the motorial. They differed, however, by the absence of incoherent speech and wild garrulity, from the forms one is accustomed to associate with the acute delirium of fever or acute mania. Tnother point worth noting was the occasional, though temporary, mental calm, which the phycisian's visits, once or twice a day up to the last three days of her life, seemed to procure. At these times she would cease shouting, the movements became quieter, she could always understand what was said and occasionally she made intelligent replies. Treatment by medicines totally failed to have any effect on the course of this terrible disease, and the only help it gave was by securing some hours of sleep, and muscular rest during sleep. The drug which seemed most useful for that purpose was chloral. On two days 1-200 grain hyoscine hydrobrom. (once repeated) was successful in calming the violence of the delirium, but it failed to have any effect the last two days of her life; while morphine hypodermically was practically useless. The occurrence of a systolic murmur at the mitral area, which was considered on admission to be probably due to rheumatic endocarditis of some two or three weeks' duration, must now, in the light of the autopsy, be judged to have been dynamic, and due to simple and acute ventricular dilatation. It is not to be explained on the grounds generally accepted—namely, anemia and choreic cardiac excitement. The heart was somewhat atrophic but showed no other changes.

Recent Development in the Therapeutical Applications of Arsenic.—Snowman, in the London Medical Lancet, says that the great value of alternatives in therapeutics is that they often change pathological processes brought about by disease into physiological processes. Their failure frequently arises from the circumstance that they introduce into the body their own toxic pathological processes. This is exceedingly well exemplified by arsenic, which is able to produce a mimiery of several diseases, much to the discomfiture of diagnosticians. In the nervous system we may have peripheral neuritis with rapid muscular atrophy, or definite myelitis. The intestinal canal may present appearances closely resembling cholera, with granular changes proceeding to fatty degenration in the epithelial lining, the interstitial tissue and Peyer's patches being invaded by large round granulated cells. The

liver may be affected in such a manner as to suggest a diagnosis of acute yellow atrophy. The skin may be the site of lesions the number of which is almost legion. Every anatomical manifestation known to dermatology from a slight erythema to a bulla is represented. The most characteristic appearances, however, are pigmentation, herpes zoster, and hyperkeratosis of the palms and soles. Hutchison maintains that these thickenings may develop into true epitheliomatous growth. The sphere of action of arsenic is obviously very extensive when it is allowed to act on the general healthy organism. Its danger lies in its tendency to cause fatty infiltration and degenration, and its therapeutical applications are accordingly very much hampered, though practical medicine still indicates a considerable field for its employment. The art of employing arsenic successfully consists in gaining control of its pharmacological action and making it subservient to therapeutic aims.

Meningo—Cerebellar Syndrome in Tertain Malaria.—Fieucci (La Riforma Medica) describes a case in which a child of fifteen years of age, with alcoholic heredity, subject to epilepsy, was attacked by symptoms of general weakness, rigidity, and pain in the cervical region of the colum. Konig's sign, anisocoria, staggering with walk with a tendency to fall backward and to the left, intense headache, and vomiting. He had quotidian fever, which fell after ten hours with sweating. All the symptoms mentioned were worse during the fever, remitting between the attacks. After two weeks' treatment with quinine the symptoms disappeared. Lumbar puncture and the aphthalmoscope gae no grounds for a diagnosis of meningitis. The intimate connection of the symptoms with the fever, absence of paralysis, clearness of the mind, excellent effects of the quinine, and quick recovery of the patient supported the diagnosis of malarial infection, and excluded tubercle and meningitis of the cerebellum.

Exophthalmic Goiter and Pseudoleukemia.—Caro (Berliner klinische Worchenschrift) says that possibly exopthalmic goiter and pseudoleukemia may have something in common and offers the opinion that the pseudoleukemic stage may be the result of the general condition of intoxication that we term Basedow's disease. The author relates the history of a case in point in which death took place under evidences of hyperthyroidism after a partial strumectomy. An evidence of the severity of the autointoxication is the fact that the patient's urine taken before the operation and injected into a guinea pig produced no symptoms, but the same quantity taken during the period of hyperthyroidism and injected into another guinea pig produced death in a comparatively short time. Another noteworthy feature of the case was the high percentage of iodine present in the thyphoid gland.

Function Test of the Heart.—Fellner and Rudinger (Berliner Klinische Wockenschrift) apply their test in this way: The patient is made to lie quietly on his back, and the pulse is counted for a full minute, while simultaneously the systolic and diasystolic blood pressure is determined in the brachial artery. The femoral arteries are then occluded by pressure, and the pulse is again counted at the same time that the systole and diasystolic blood pressure in the brachial artery is determined. The investigation of seventy cases gave the following results: The normally strong heart reacts to the compression with an increase of pressure of from 5 to 10 mm. The strong hypertrophic heart reacts with a greater increase of pressure, from 10 to 20 mm. Weakness of the heart is shown by no increase in the blood pressure, or more frequently by a lowering of the blood pressure from 5 to 15 mm. Only slight increase of blood pressure with a hypertrophic heart indicates a commencing abatement of the energy of the heart.

Appendicitis; Empyema and Abscess of the Lung as Sequels of Acute Suppurative.—Gage (Boston Med. and Surg. Jour.) says that abscess of the lung and pleural empyema are no infrequent sequels of appendicitis, being present in not less than 2 per cent or 3 per cent of all suppurative cases. The source of infection may occasionally be overlooked. They may occur, although rarely, as true metastatic processes, more commonly as a result of a collection of pus in the subphrenic space in the course of a general purulent peritonitis; but by far most frequently of all, as the result of a direct extension of an abscess along the outer side of the ascending colon to the right subphrenic space, and thence to the pleura and the lung.

These complications are by no means necessarily fatal; on the contrary, in those cases where the pus finds an outlet through a bronchus, and is discharged from the mouth, a favorable result may be expected. Much may be

done to prevent such an accident by more efficient drainage of these abscesses which lie on the outer side of the caecum, above the brim of the pelvis, and which, by their position, would naturally gravitate toward the lion.

Typhoid Fever, Widal Reaction In.—According to Laird (Annals of Surgery), the Widal test in typhiod fever has limitations. The value of the test is, in part, dependent on the technic of making it. A suitable culture must be used and the patient's blood-serum must be collected and diluted to a certain degree. There are cases of typhoid fever, so far as can be judged from the clinical symptoms, which do not show the reaction. A positive reaction is sometimes obtained in the course of diseases other than typhoid fever, or even in health.

The reaction, however, is of undoubted clinical value, since it may be obtained in nearly all cases of typhiod fever if the test is repeatedly and carefully made. It can so rarely be obtained from the serum of healthy persons or those suffering from diseases other than typhoid fever, that the occasional reactions secured from such persons do not greatly diminish the value of the test. While not pathognomonic, the Widal reaction can certainly be ranked as of equal value with any of the clinical symptoms o ftyphiod fever.

Postural Albuminuria.—Heubner (Berliner Klinische Wochenschrift) says that it has long been disputed whether the albuminuria which vanishes when the patient reclines is physiologic or functional, or the result of actual disease of the kidney. He brings an important contribution to the subject with the postmortem findings in the case of a child in whom this orthostatic albuminuria had been observed during life and who succumbed to an intercurrent brain tumor. The author states that the kidneys were sound macroscopically, with the exception of congestion in the organs, without extravasation or haemorrhage. There was also an extremely slight tendency to fat-infiltration at a few points, and a minute focus of degeneration, 1 by 5 millimeters, on the surface. These slight changes are attribute dto the long death-agony in the case. They were too trival to be considered, he thinks, in connection with the orthostatic albuminuria, which had been observed for a year and a half. A small tuberculous lesion was found at one apex, which confirms the view held by some observers, that the postural albuminuria is a "pretubereulous phenomenon."

Postpartum Haemorrhage.—LePage, in the British Medical Journal, defines this as a haemorrhage resulting from an atonic state of the uterine muscle, acquired, accidental, or constitutional. The one thing which should be immediately done, the one rational treatment in all cases is to shut off the blood-current along the uterine arteries by compressing the abdominal aorta. The uterus is atonic. Its gaping vessels are, or were, so long as any blood tension remained, pouring out blood. There is marked collapse. The nerve-centers which control uterine contractions, and the higher centers which control cardiac action and respiration, are devitalized. The first indication is to prevent further maemorrhage. The second is to revitalize the nerve-centers, which can only be done by increasing the volume and current of the blood. The third indication is, having restored blood-tension and nervous energy, to assist, now possible, uterine contraction.

According to the writer, treatment consists of the following steps seriatim: The pelvis is raised, to cause the blood to gravitate toward the heart and brain and to prevent bleeding from the ovarian and uterine veins. The abdominal aorta is compressed, to immediately arrest artesial haemorrhage. Compression is best made against the spinal column beneath and below the umbilicus, with the outer portion of the left clenched hand. The pressure should at short intervals be made to slide from one part to another of the available three or four inches, to avoid injury to the networ kof sympathetic nerves around the vessel, and it should be continued until uterine contraction is secured, even if this be delayed for one or two hours. Its release must be very gradual. The arms and legs are raised to transmit their blood into the trunk, and then firmly bandaged to prevent the returna of blod when they are lowered. By these means the blood tension is raised almost to normal in one or two minutes. The aseptic hand is then carefully passed into the uterus to detect any possible laceration of the body or cervix, any retained portion of placenta, and to afford a point d'appui for grasping and compressing the uterus from outside. The bandage must be kept on the limbs a long time and blood allowed to return into them very slowly. This method of treatment was tried in about 5,000 parturitions without a death from postpartum haemorrhage.

Embolism.—Hall (Practitioner) remarks that the circulatory system, like any other system of pipes and tubes, may get out of order, plugging or embolism being one of the possibilities. Embolism is favored by the variation in diameter of the vessels. It implies a pre-existing morbid condition, which produces in the blood-stream a substance which cannot circulate. The position in the circulation where embolism occurs depends upon the size of the embolus. The circulation, with respect to embolism, may be divided into three parts, separated by impassable capillaries. One part extends from systematic venules to pulmonary arterioles, another from pulmonary venules to systematic arterioles, and a third from gastro-intestinal venules to interlobular portal venules.

Two types of embolism are considered, multiple embolic aneurisms and pulomnary embolisms. The former originate from valvular vegetations of the left heart associated with rheumatic or infective endocarditis, and are rapidly fatal if they attack the intracranial vessels. The latter usually begin as thrombi in the systematic veins, death occurring suddenly, with perhaps no precedent evidence of any serious condition.

Tuberculin in the Treatment of Lupus and Scrofuloderma.—Lespinne (La medicine orient) records the result of treatment of 22 cases of lupus vulgaris, 12 cases of scrofuloderma and 4 cases of lymphadenitis by means of tuberculin prepared by Jacogs of Brussels. In no case was there any local reaction of any rise of temperature; nor did the treatment in any way interfere with the daily routine of the patients. At first there was a slight loss of weight accompanied by an improvement in appetite. At times there were inflammatory symptoms in the neighboring lympathatic glands soon, however, disappearing.

The result of the treatment varied n different cases. Some cases of lupus failed to show any improvement at all. In no case, however, was the condition made worse by treatment. In the majority of the cases, especially those of scrofuloderma, the results obtained were excellent.

Anticular Rheumatism, its Tonsillar Origin and its Tonsillar Cure.—Gurich (Ctrlblt. f. Zun. Med.) says that the primary focus of articular rheumatism, is chronic follicular angina. The infectious agents of articular rheumatism reside in the tonsils, and froh re enter the blood in relays, producing the disease and its relapses. Accordingly, the disease can be readily cured only by the incision and removal of the suppurating crypts of the tonsils. After the majority of these suppurating crypts have been incised in one session in a rheumatic patient, the rheumatic manifestations, such as fever and articular pain, are observed to subside within a short time, often after half an hour only. On the second, third or fourth day there usually occurs an acute exacerbation of the rheumatic phenomena, as a "reacion." If the tonsillar suppuration is definitely removed in later sessions, the rheumatism also will subsequently disappear entirely. Among 140 cases treated by the author, 98 made a permanent recovery.

Nevi and Angiomata—Electric Treatment.—Kimmern (Journal de Medicine) considers Electropunsture the best treatment of superficial angiomata an nevi. He uses a high-frequency current and fine needles which must be insulated except near the point, as action on the skin itself will cause scarring. In cavernous angioma with dilated vessels the current is carried along these and the method of application is evident, but in flat, uniform nevi the application is more difficult. In most cases the writer begins at the edge of the spot, inserting one needle slanting away from the center of the nevus, and the other also at the edge and slanting parallel to it at a distance of one-fifth to one-half inch. The current is turned on for about a minute, and then one of the needles is moved to the other side of its fellow and inserted in the same way. This is continued until the entire mass is circumscribed, five to six applications being made at each seance. When the circumference has been treated the center is attacked. Four or five needles are connected with the positive pole and inserted at equal distances around the edge of the mass, and one needle connected with the negative pole in the center. The current is then turned on and continued until a grayish discoloration is noticed around the needles, generally at the negative pole first. This is the sign for immediate cessation of the seance. The strength of the current should not be more than 60 milliamperes nor iess than 20, 40 to 50 being the best. The pain may be considerable, but anaesthesia is rarely required. Pain may ordinarly be prevented by turning the current up to 60 instantly and reducing it rapidly to the desired strength. The treatment is indicated in all superficial angiomata and nevi.

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Early Diagnosis of Typhoid Fever.—Conradi (Muench med. Woch.) discusses the various methods for the early diagnosis of typhoid fever, calling particular attention to the great advantage of the new bile medium as a diagnostic aid. He has shown that in the blood of the typhoid patient, taken for the purposes of the Widal-Gruber reaction, the bacillus of typhoid may be found by means of the bile culture medium. The usual mode of procedure is as follows: The ordinary capillary tubes used for the Widal agglutination test are employed. These usually contain about .05 to 0.2 Cc. of blood coagulum and serum. The thread of coagulum is removed from the capillary tube and put in the bile medium. This consists of oxible, to which 10 per cent of peptone and 10 per cent of glycerin have been added, the tube being sterilized two hours in a steam sterilizer. To loosen up the coagulum, it remains in the bile medium for from twelve to sixteen hours at a temperature of 37 degrees C. After this 0.1 to 1 Cc. of the fluid is inoculated on a litmus, milk-sugar, agar plate, and examined for colonies in the ordinary manner. As a result, in 60 patients investigated, about 40 per cent of the cases proved positive in the first week of the disease. In 24 of the 60, 21 showed typhoid organisms, and 3 paratyphoid bacilli. The author believes that he is justified in saying from the material to hand that the bile cultures of slightly coagulated blood are capable of affording a diagnosis in the early weeks of typhoid in at least 50 per cent of cases. If larger quantities of blood are used than thos usually supplied by the Widal test, it is fair to infer that a higher percentage of success would be recorded.

Amyl Nitrate in Hemoptysis.—Grace-Calvert (London Med. Lancet.) holds to the opinion that none of the drugs usually given in pulmonary hemorrhage such as ergot, adrenalin, morphine, calcum chloride, of lactate are of supreme value, though he does not deny that some of them may help if there is time for them to act. The writer places his faith in amyl nitrite, which he carries in three minim capsules. He breaks one, telling the patient to inhale the vapor quietly and regularly and not to be disturbed at the feeling of fullness in the head. The bleeding usually stops almost at once, though the patient may go on coughing up clotted blood which has already been effused. Later, if the patient is excited or alarmed, and the lungs appear to be irritable, a hypodermic or morphine is given. The amyl nitrite produces such an immediate fall in the general blood pressure by dilatation of the vessels throughout the body that the pressure at the bleeding point is lowered and there is time for clotting to take place, and the hemoptysis usually ceases almost instantly. Even if the pulmonary vessels are dilated the ill effects are more than counterbalanced by the fall in blood pressure, and experiments seem to prove that it has a direct vosconstrictor action on the vessels of the pulmonary periphery in spite of a vasodilator action elsewhere. It may, however, be urged that this constriction of the pulmonary vessels is bad in that it must raise the blood pressure in those vessels, but this seems to be more than counterbalanced by the fall in general pressure, whereas n the case of adrenaline, ergot, etc., there is no corresponding fall in general pressure. Moreover, nitrite of amyl causes no reactionary pulmonary hyperemia (after the anemia), while adrenalin apparently does. Again, nitrite of amyl has a further good point, and that is the fact that it does not interfere with coughing and so does not place any obstacle in the way of the patient getting rid of the effused blood, and hence it considerably-lessens the risk of septic trouble later.

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The Pathology and Treatment of Puerperal Eclampsia in the Light of Recent Work.—Sikes, in the London Practitioner, believes that apart from the well-known pathological findings in this condition, it is produced by the non-elimination of the normal metabolic products of the fetus, this non-elimination being accounted for by renal inadequacy due to extra strain on the kidneys hampered by pressure on the ureters, and by the alteration in the pressure in the renal blood system. When once these metabolic products cannot leave the system, the liver is soon deranged, and deficient oxidation here makes the condition worse. The mother's own mentabolic changes are interfered with, and insufficiently oxidized proteid substances, circulating in the blood, act on all the tissues, blood vessels, etc., causing an increase of fibrin in the blood and thromboses in the vessels of both mother and child. All the work on eclampsia shows that the difficulty of elimination is the paramount cause, and anything which interferes with elimination—old disease of heart or kidneys, narrow pelvis or protracted teeth—all favor the onset of the disease. He, in considering the prognosis in this class of cases, thinks that from the clinical aspect, the smaller amount of albumin the more normal the pulse in rhythm and tension, the nearer the onset of the fits to the end of pregnancy, the shorter time the fit lasts, and the greater the time between the fits so much better will the prognosis be. The prophylatic treatment consists in rest, purgation by saline aperients, milk diet and very small quantities of meat. The patient should drink as much fluid as possible. Exposure to draughts, cold and damp, should be carefully avoided. When the fits have started the author recommends saline aperients, narcotics, chloroform, and carefully considers th euse of diaphresis enteroclysis, hypodermoclysis and bleeding, and is in favor of the active line of treatment.

Apparent Phlegmasia Alba Dolens of Uterine Origin.—Kiriac (British Gynecological Journal) says that edema of any considerable extent does not occur unless there is some obstruction in the veins, and in regard to the transitory partial edema, which, according to Budin, is sometimes seen in the puerperium, which is of short duration and to be attributed to the influence of toxins, the writer believes that there is blocking of the smaller venous branches of a kind not sufficient to cause phlegmasia alba dolens, but giving rise to edematous changes, which hisappear comparatively quickly. The author mentions the history of several cases observed by himself in which edematous swellings developed in the legs after the uterus had been euretted in consequence of retention of the placenta after abortion. In one of these cases incautious movements during convalesence resulted in sudden fatal embolism. In the treatment of such edema it is of the chiefst importance to keep the affected limb in absolute repose and surrounded by warm, wet compresses. Only after some weeks, when every trace of swelling or pain has disappeared, should any movement be permitted.

Miscellaneous.

The Management of Convalescence.

In convalescence from acute diseases, such as pneumonia, typhoid fever, acute articular rheumatism, etc., we are face to face with the problem of restoring the weakened organism to its normal condition. The blood shows a state of secondary anemia, the nutrition is lowered, the nerve and muscular tone is below par; the appetite but sluggishly answers our urging, and the digestive powers feebly respond to the demands made upon them.

It is at the dawn of convalescence, when the danger of the illness itself has passed, when the desire to live, to get strong, is highest in the patient, that the physician's reputation often hangs in the balance. Having brought the patient through an illness, many physicians are unfortunately content to rest on their laurels, and to let long-suffering "Nature" do the rest. The wise practitioner, however, knows that Nature is grateful for the proper kind of aid

in these circumstances,—aid in her efforts to lead a weak organism out of the bondage of illness.

And so, the far-seeing physician will look about in his armamentarium for a drug or a combination of drugs which will restore the blood, the nutrition, the digestion, the assimilation, the appetite, the weight, and the powers of resistance of the sufferer to normal, in the quickest possible time.

Fortunately, nature has provided two chemical elements, iron and manganese, which are as necessary to the system as life itself, and which, when given in the proper amounts and in the proper forms, will carry the patient through convalescence to health. In the delicate state of the digestion of a convalescent it is of the utmost importance that the forms of iron and manganese administered be such as to become absorbed and assimilated with the least disturbance of the gastro-intestinal organs. The old-fashioned inorganic preparations of iron which still figure in the Pharmacopœias of various countries are totally unsuited for this purpose.

The scientific researches of Hamburger, Bunge, and others, conducted during the past twenty-five years have shown the immeasurable superiority of the organic compounds of iron and manganese. The organic compounds alone have been found to be absorbable in such amounts as to produce the desired action on the blood. Of these compounds the peptonate, which is an organic-chemical combination of iron and manganese with peptone in a solution, known as Pepto-Mangan (Gude) is the most readily absorbed, and therefore the most efficient preparation of iron-manganese known, and as such is used with the greatest benefit in convalescent anemias.

A point which is frequently lost sight of in considering the treatment of anemia, is the importance of manganese as a constituent of normal blood, and as an element ranking only next to iron in its power of building blood corpuscles and increasing the life-bearing hemoglobin of these cells.

Campani, an Italian savant, as early as 1872, demonstrated that manganese is found in the red blood cells, as well as in the serum of normal blood, and the more recent researches of Lecanu and Lheritier show that manganese forms a constant constituent of the hemoglobin molecule. Furthermore, Zaleski (Zeitschr. f. physiol. Chemie, 1904, page 440) showed that manganese enters the molecule of hemoglobin with the same readiness as does iron, and therefore it has the same direct blood-forming power as iron. But, perhaps the most important fact in connection with manganese, is that once having entered the red cell, it attracts iron to the coloring matter of the blood, as the recent investigations of Benedetti have shown (Boll. Scienc. Mediche, Bologna, June, 1905).

A consideration of the above facts will convince any unbiased physician that the preparation known as Pepto-Mangan (Gude) is made on scientific principles, in accordance with the researches conducted by the foremost physiologists and clinicians within the past quarter of a century. It contains a combination of iron and manganese calculated to secure the highest possible blood-building efficiency without in the least interfering with the digestive functions. On the contrary, Pepto-Mangan is an excellent digestive tonic, it increases the appetite and promotes nutrition. Pepto-Mangan (Gude) therefore offers in convalescence the surest, most agreeable, and most prompt road to perfect health.

The West Virginia State Medical Association will hold its annual meeting at Huntington on May 15 to 17, 1907. The officers for this year are: President, Wm. W. Golden, Elkins; Vice-President, V. T. Churchman, Charleston; Secretary, T. W. Moore, Huntington; Treasurer, T. L. Barber, Charleston.

At the meeting of the South Carolina State Medical Association held in Bennettsville on April 18 officers were elected as follows: President, Dr. LeGrand Guerry, Columbia; First Vice-President, Dr. J. Adams Hayne, Greenville; Second Vice-President, Dr. Marsh, Edgefield; Third Vice-President, Dr. Mary R. Baker, Columbia; Secretary, Dr. Walter Cheyne, Sumter; Treasurer, Dr. C. P. Aimar, Charleston; State Board of Health, Dr. Robert Wilson, Charleston; Dr. Hall, Aiken; Dr. C. C. Gambrell, Abbeville; Dr. J. Adams Hayne, Greenville; Dr. W. J. Burdell, Lugoff; Dr. James Evans, Florence; Dr. C. F. Williams, Columbia.

The Association of Seaboard Air Line Railway Surgeons will hold its annual meeting at Jamestown July 10 and 11. The officers of this association are: President, Dr. W. A. Monroe, Sanford, N. C.; First Vice-President, Dr. J. G. Wallace, Dade City, Fla.; Second Vice-President, Dr. H. M. Wilder, Charlotte, N. C.; Third Vice-President, Dr. E. H. Richardson, Atlanta, Ga.; Secretary and Treasurer, Dr. J. W. Palmer, Ailey, Ga.; Executive Committee, Drs. Jas. R. Rogers, chairman, Southgate Leigh, J. W. Corbett, Jno. W. Blair, and Jno. H. Miller.

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Strontium Bromide in Treatment of Epilepsy in the Insane.

Bennion, in The London Medical Lancet, says that strontium bromide, as a rule, acts better in controlling the number and severity of the fits than the mixed bromides of sodium and potassium. Strontium bromide rarely causes depression, and rashes remained absent in all the writer's cases. This remedy, in the author's opinion, acted best and most consistently on the female patients, in all of whom the action, as regards controlling the fits, was superior to that of the mixed bromides. The maniacal symptoms of the male patients while taking strontium bromide were not influenced to any perceptible degree. The mental condition of the female patients appeared to improve. Considering the severity of the type of epilepsy on which the author's observations with this drug were made, there seem to be reasonable grounds for supposing that, with a milder form of epilepsy than is usually met with in an asylum, an even greater benefit would be derived from the administration of this drug.

Haemorrhages in Pregnancy due to Changes in the Decidua Reflexa.

Mendels (Centralbl. f. Gynak.) mentions the generally accepted view that the decidua reflexa after the sixth month becomes thinner until it almost disappears, leaving the decidua vera and chorion in direct contact. But from the examination of a large number of placentæ, he says that this does not always occur, and that a small portion of the decidua reflex may persist between the chorion and decidua vera. During the early months of pregnancy the decidua may also disappear, with hæmorrhage as a result. In cases of hæmorrhage from anomaly of the decidua reflexa, there are no other symptoms of abortion. The fœtus is always alive, the hæmorrhage begins early in pregnancy, and severe anæmia may result. He says that such a degree of anæmia justifies the artificial interruption of pregnancy.

The Nasal Chambers and Nasopharynx in Recurrent Erysipelas of the Face.

Larraud (Echo medical du Nord) says as the result of his studies of recurrent facial erysipelas, he has found that the majority of these cases have for their origin an infection in the nasal fossæ from which the disease spreads either through the lachrymal puncta or the nostrils. The point of departure may be the mucosa of the nasal fossæ, but much more frequently it is located in the adenoid tissue of the pharynx, which may be more or less hypertrophied. The preventive, and likewise curative, treatment of recurring erysipelas of the face, therefore, consists in cleaning the nasal chambers and nasopharynx, and principally in removing the adenoid hypertrophies of the nasopharynx.

Difficulties in the Surgical Diagnosis and Treatment of Cases Associated with Vomiting in Children.

Swain (Bristol Medico-Chirurgical Journal) states that he has always found it a safe surgical practice to open the abdomen without delay in cases of doubtful diagnosis where vomiting is associated with a gradually increasing tympanites. Tympanites, however, is apt to be absent in intussusception in children, which renders the diagnosis at times obscure, especially as in more than half the cases a tumor cannot be felt, and in 20 per cent. there is no passage of blood-stained mucus.

The writer cites 3 cases in which he made an exploratory incision without finding the cause of the vomiting. He thinks the first two—one fatal and one recovery—were cases of cyclical vomiting. The third case, also fatal, showed a slight intussusception, but the author thinks that the real cause of death was the severe gastroenteritis present. The author says, "The chief point of interest to the surgeon is how to recognize cases of cyclical vomiting," and emphasizes the importance of the examination for acetonuria.

The Treatment of Surgical Tuberculosis by Marmorek's Serum.

Hoffa (Berl. klin. Wchnschr.) records a favorable opinion of the value of Marmorek's serum in surgical tuberculosis. The author has used it both by subcutaneous and by rectal injection, and very much prefers rectal injections, owing to the absence of local or constitutional disturbance and the satisfactory results following their use. Up to the date of his paper he had treated twenty-two cases for a sufficiently long period to enable him to form definite conclusions, and he states the results in percentages as follows: 18 per cent. were cured, quickly and completely; 18 per cent. were remarkably improved; and the rest were apparently not materially influenced by the injections. The treatment never caused any exacerbation of the disease. The cases were of the ordinary clinical types, hip, knee, and ankle-joint disease, etc. The rectal injections were given daily, 5 to 10 c.c. being injected at a time. Hoffa declares his opinion that the serum is of definite value in the treatment of tuberculosis, and its complete harmlessness, and the simplicity of the method of using it, are points in its favor.

Are Injections in Acute Gonorrhoea Rational Treatment?

Canon (Deutsche Med. Wochenschrift) says it is his opinion that the urine washes out the urethra better than can be done by injections. He advises the increasing of diuresis and the medication of the urine by the internal administration of drugs. The writer states that the gonococci nearly always pass into the blood, but rapidly die there unless they can find a place with lessened resistance where they can locate and multiply. This condition is very liable to follow urethral injections, which frequently set up inflammations by erosion of the mucosa and by the introduction of pyogenic germs from without.

As a profession we have erred in the past in giving too much medicine, we err now-a-days possibly in giving too little. With the development of modern pharmacology and the decline of crude empiricism; with the tendency to give a single drug to meet definite indications; with the revival of esthetic medication and the abandonment of nauseous polypharmacy, drugs are recovering their legitimate place in the therapeutic armamentarium even of the most skeptically inclined.—Alfred C. Croftan, in the preface to his new "Clinical Therapeutics."

Poisoning by CO and CO2 and Pneumonic Infections.—Biondi and Leoncini (Rivista Criticica di Clinica Medca) having observed two cases of accidental poisoning by CO and CO2, in which a pneumonic infection was precipitated by the poisoning, have experimented on dogs to ascertain whether there were evidences that the asphyxia produced by gas poisoning contained for some hours would so reduce the resistance of the tissues as to render them peculiarly susceptible to the action of the pneumonococcus. The animals were subjected to inhalations of CO and CO2, and afterwards injections were made into the trachea of a moderately virulent culture of the bacillus of Fraenkel. The conclusions at which they arrived were that both of these gases so reduce the resisting power of the lung tissues as to make the animal an easy prey to the infection. Animals treated by the same injections without gas poisoning did not take pneumonia.

The Rontgen Ray Treatment of Exophthalmic Goiter.—Freund (Munchener medizinische Worchenschrift) states that the medical treatment of this condition is to be preferred to surgical procedures and that he believes the x-ray treatment to be the most satisfactory of all. The writer describes five cases in which either great improvements or an apparent cure was effected by this means. In three of the

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cases no other remedial measures were employed, so that the complete relief of the symptoms that resulted must either be attributed to the action of the rays or it must be taken for granted that the condition had undergone spontaneous retrogression, the latter being an assumption which the writer does not believe is justifiable. In another case the smyptoms disappeared only after the radiotherapy had been begun, and in the fifth case, although great improvement in the subjective conditions had been effected, the ultimate result is not yet certain. He believes that the Rontgen rays fulfill the causative indications in exophthalmic goiter, since they cause the abnormally active typhoid gland to diminish in size. They always exert a beneficial influence on the body weight and on the nervous manifestations, while the other symptoms, such as heart murmurs and exophthalmos, may also be caused to disappear. The prognosis is best in dealing with soft vascular goiters, which may completly subside under the treatment, while in the cases with hard nodular growths this is less likely to occur. The effects are more satisfactory the shorter the duration of the case has been.

A national petition is being started in France by the labor unions, aided by the leading deputies of the Left, says the Medical Record, to prohibit the manufacture and sale of absinthe. More absinthe is consumed in France than in the rest of the world put together.

More than a million of infants have been killed by the various decoctions known as soothing syrups and pain killers, says Dr. H. W. Wiley of the bureau of chemistry of the Department of Agriculture. Impure milk has cost the lives of more than twice that number of babies.

An excellent way of administering castor oil, says the British Journal of Nursing, is to pour hot (nearly boiling) milk into a bottle, then add the oil which should be ⅓ the quantity of the milk, and shake the bottle till the two are well blended, forming an emulsion. A glass in which oil is put for administration should always be wet with plain water or with lemon juice to prevent the oil from sticking to the glass.

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Arteriosclerosis.—Herringham, in the British Medical Journal, says that it is common knowledge that arteriosclerosis, as seen in many, may be due to certain poisons, such as those of syphilis, lead, and alcohol. Chronic, diffuse nephritis, too, in young people can produce endarteritis. But the great majority of cases of arteriosclerosis do not fall under these heads, and in them the cause is still undecided. While atheroma and endarteritis tend in their turn to raise the blood-pressure by offering increased resistance, they seem to be often, and perhaps usually, the result of a high pressure antecedent to themselves. Thus the loss of elasticity in the arteries, instead of causing the high pressure, is the result of the same, as is evidenced by the fact that all such arteries are widened before losing their elasticity. It probably requires considerable time for increase of pressure to deprive arteries of their elasticity. When the conditions bringing about the rise in blood-pressure are inquired into, a region of many theories and few facts is entered into. The high pressure is due to increased resistance, which in turn may be due to the disease in the blood vessels, to increased viscosity of the blood, or to the presence in the blood of toxins, undigested products, extracts of animal tissue, excretory substances, etc.

The first necessity in treatment, if the symptoms are severe, is rest in bed; a good many cases improve under this alone. A certain amount of regulated exercise should be taken daily; the patients should rise early; and if men, they should renounce tobacco. Smoking raises the blood-pressure in man just as certainly as does the injection of nicotine into animals. In some cases severe symptoms are for the time greatly relieved by nitrites. But their effect is usually transient. No drug approaches calomel. Given in small doses of half or one grain every night for a short time, and repeated at intervals, it is often of great value. It is needed for its alterative, not its purgative effect. Alkalies act by increasing the flow of urine.

Diet is more important than habits or drugs; a very light diet often acts like a charm when the cause of the high pressure is the presence of an impurity in the blood. When it is due to permanent changes in the vessels, it is necessary for the blood flow, and the heart must be strengthened for its task by rest and small doses of digitalis. Meat should not be prohibited; most patients do much better with meat than without it, but the total of their food must be kept at a very moderate level, as their means of disposal of refuse are crippled. This is especially true in cases of chronic nephritis; the blood-pressure will probably not be reduced, because of disease of the abdominal vessels. These vessels have a preponderating effect upon blood-pressure, and are nearly always diseased in chronic nephritis of middle life. The degenerating renal tissue pours a toxin into the circulation which can only be removed by increasing the flow of urine; change of diet has no effect. Chemical analysis of foods has farther to go than the estimation of calories or nitrogenous contents; personal observation often tells far more than chemistry. Carbohydrates and salines have little or no effect upon blood-pressure.

The Cure of Chronic Suppuration of the Middle Ear without Removal of the Drum or Ossicles, or Loss of Hearing.—Heath (London Lancet) says that the preliminary preparation and incision are as for the radical mastoid operation. The displacement of the cartilaginous canal forward is done with great care, so as to avoid injuring the membrana tympani. The operator must avoid passing probes forward into the tympanum through the antrum to avoid injury to the drum membrane or ossicles. Granulations and polypi are carefully removed from the antrum and aditus. The bony meatus is enlarged by removal of osseous tissue, so as to give free access to the aditus and membrane during the operation and after-treatment. Polypi and granulations are removed from the tympanum through the perforation in the drum membrane, by means of specially devised forceps. The bridge is not removed as a rule. The membrane, ossicles, and contents generally of the tympanic cavity are carefully guarded against injury. A flap is cut from the roof and posterior wall of the cartilaginous canal and turned down and back, and the wound closed in the usual way, a large tube five-eighths of an inch being inserted into the meatus. The after-treatment consists in blowing through and douching out the aditus and attic by means of specially constructed cannulæ passed through the external meatus into the aditus. By the removal of the disease from the "danger zone," the antrum, the author claims that the attic, tympanum, and their contents recover quickly from the suppurative process, and he shows in the report of cases that the effect of this operation on the hearing power is most beneficial.

Chronic Appendicitis and the Early Diagnosis and Treatment of Acute Appendicitis in Children.—Broca (The British Journal of Children's Diseases) discusses various phases of the subject. Apparently appendicitis in children is more frequent in France than in England, which the writer thinks may be due to the difference in feed-

ing rather than to epidemics of influenza. The author is convinced that appendicitis is, in a great majority of cases, the result of an enterocolitis of some form, particularly muco-membranous colitis. This point is emphasized on account of the fact that some French writers have declared that these two conditions never occur together. Broca has seen children die of appendicitis because the attending physician had this erroneous idea of antagonism.

After an enterocolitis the appendicitis does not show itself at once, because the process is chronic. This explains the fact that the condition is rare in very young children, although intestinal diseases are so frequent.

Attention is called to the analogy between appendicitis and the various lymphatic inflammations in the throat, although the supposed causative relation is not mentioned.

The symptoms of chronic appendicitis take the form of chronic intestinal indigestion, flatulence, alternating diarrhœa and constipation, gastralgia, offensive breath, furred tongue, nausea, and later the various signs of chronic malnutrition. Careful examination at McBurney's point will usually show deep seated tenderness and often some signs of infiltration. In all cases of chronic "indigestion" or recurrent "indigestion," the physician may expect to find this trouble if he is on his guard.

He says that there is no medical treatment for appendicitis and in these recurrent attacks advises the "interval" operation.

Mistakes in diagnosis may be caused by pneumococcic or gonococcic peritonitis, by central pneumonia with abdominal symptoms, intestinal worms, and typhoid with sudden onset and irregular symptoms. Blood counts are useful, but must be carefully interpreted.

After trying various methods of operating, he says that in most cases the McBurney technic is the best. In diffuse septic peritonitis he believes in operation, although the percentages of cures are, of course, small. In such cases he makes two or three free incisions and uses large rubber drainage tubes. Copious irrigation he has not much faith in, although he uses it at times.

Membranous Colitis.—White, in The London Medical Lancet, report sixty cases of this disease. Only one of these occurred under the age of ten years. The case was that of a girl, aged four years. She had no pain or tenderness, but for two years before she was first seen she passed huge tubular casts from the bowels every time they were opened, and she was constipated. She was

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pale and languid and increased very slowly in weight. She never passed any blood, and otherwise appeared perfectly well. Her surroundings were the best possible, but neither castor oil, nor high-frequency treatment, nor any particular form of dietary appeared to better the disease. Out of Van Noorden's series of seventy-six cases four were children. The writer of this article refers to constipation as being by far the most important fact in connection with the bowels in these cases, and mentions neurasthenia as the prevailing element associated with the disease. By far the most important part of the treatment is to keep the large bowel empty. The simplest way to do this is by aperients, and in many cases castor oil by the mouth will cure the patient. It is best given in the early morning as soon as the patient wakes. If this produces nausea, sulphate of magnesium may be tried instead, or, if this is unsuitable, calomel may be given at bedtime. Should these methods fail, the large intestine should be kept empty by washing out with plain water at a temperature of 100 deg. F.

Leukanaemia.—Hurter (Liverpool Med. Chir. Journal) mentions the case of a youth, æt. 17, who for six months had been steadily becoming more anæmic. His blood showed 508,200 red cells, 15 per cent. of hæmoglobin, and 6000 leucocytes; the color index was 1.5. Differential counts gave about 6 per cent. of myelocytes, and 14,000 nucleated red corpuscles, almost all of them megaloblasts, per cmm. Otherwise there was little to note; the spleen, glands, and bones were normal; the gums were spongy; there was a leukæmic retinitis. No Bence Jones albumosuria. The patient was treated by X-rays applied to the spine, thorax, and long bones; he took arsenic, iron, extract of bone marrow, and various intestinal antiseptics, but without any benefit. His temperature rose, he suffered much from epistaxis, and gradually the spleen became palpable. Death occurred in about eight months from the onset. During the last three weeks of life a marked change took place in the blood, acute leukanæmia supervening; the leucocytes rose to 290,000 per cmm. During this period there were 25 per cent. of myelocytes, but eosinophiles were scanty, sometimes absent. In the later stages many non-granular myelocytes were found. These he accepts as undifferentiated leucoblasts, stating that they are the same as the large lymphocytes of lymphatic leukæmia. In the earlier days of the illness the erythrocyte formations were embryonic; towards the end there appeared on the white cell side indications of a more and more

complete reversion to the ancestral condition. The mononuclear cell now tends to predominate in what has been called a mixed-celled leukæmia. Had death been postponed long enough to allow this loss of differentiation to continue, lymphatic leukæmia might have resulted. During the first three weeks the case was undoubtedly pernicious anæmia; during the terminal stage the myelocytosis was consistent with leukæmia. The result of the combination of the two is known as leukanæmia. There was no postmortem.

Experimental Studies of the Remote Results of Spinal Anesthesia.—Falkner (Zent. f. Gyn.) mentions the bad effects of spinal anesthesia as follows: Pallor, small pulse, bad respiration and cyanosis during the operation; after it, severe headache, vomiting, rise of temperature and anxiety. Some authors have published reports of cases in which there were, some two weeks after the operation, paralyses of various muscles, especially the abducens, and even death. There was, in some cases, a later difficulty in breathing from partial paralysis of the muscles of respiration. These effects have appeared after the use of all of the drugs used in spinal anesthesia, although they act in different ways, cocaine on the sensory nerves and stovain on the reflex mechanism. There has been some doubt as to whether the bad effects were due to poisoning from the drugs or to lesions of the spinal cord produced by the puncture and injection. He has made experiments on eight dogs, puncturing the lumbar region and injecting tropococain in the usual way. The dogs were then kept for some months under good conditions, and were then killed and examined. The most careful examination of the spinal cords showed no changes in them, all being entirely normal. Although the experiments involved only a small number of animals, they go to show that the bad effects of the method are not due to the puncture, but rather to drug poisoning.

Pylorospasm in Infants.—Huebner (Die Therapie der Gegenwart) says that the diagnosis of this condition depends on the presence of the following signs: Peristaltic movements of the fundus of the stomach, usually from left to right; vomiting of whole or part of the food taken, no matter what treatment is adopted; the costiveness, the stools showing the empty condition of the bowel. Vomiting associated with diarrhœa ought, in ordinary cases, at all events, to exclude the diagnosis of pylorospasm. Atrophy, moreover, should only suggest this condition when the other symptoms already mentioned are present. In thirty cases, vomiting began at birth in five; at the age of one week, in two; at the age of two weeks, in five; at the age of three weeks, in twelve. The vomiting did not start until the infant was a month old in four cases, while this symptom did not occur until the fifth and seventh weeks in one case each respectively. In eleven of his cases the author was unable to obtain any information on this point. Out of his forty-one cases, thirty-one were males and eight females; in two the sex was not noted. In thirty-three of his cases, eleven were breast-fed and fourteen were wet-nursed; only three were artificially fed, and in five cases various forms of nourishment had been tried—namely, the breast, peptonized milk, malt soups, and raw milk.

The Dilatation of the Bladder with Oxygen.—Polano (Naturforschervers, Stuttgart; rev. in Centrbl. f. Gyn.) noting the irritability of the bladder when filled with ordinary atmospheric air was led to the idea of using oxygen for this purpose in making cystoscopic examinations. The anæsthetic properties of the oxygen as seen in the treatment of joint inflammations (Hoffa) were noticed likewise in these bladder cases, so that cases of severe cystitis, tuberculosis, cancer, etc., could be successfully cystoscoped. Doubtless, too, the method diminished the danger of infection by the introduction of an oxidizing agent with the cystoscope.

A very simple but effective way to generate the oxygen is given. 120 ccms. of 3 per cent. hydrogen peroxide and as catalyzer adds a potash permanganate tablet. Placed in a properly sealed bottle whose outlet is connected with the catheter, this mixture will generate about a litre of oxygen gas at the rate of 120 ccms. per minute.

Analgesia of the Tendon Achilli in Tabes.—Racine (Munch. Med. Wchschrft.) says that a more frequent early symptom of tabes than reflex rigidity of the pupils and absence of the patellar tendon reflexes, consists, according to Abadie, in the absence of the normal sensation on pressure of the Achilles tendon. He investigated these statements, employing for accurate determination a pair of forceps, the branches of which, on being brought together, directly indicate the pressure that has been exerted, in values of kilograms (1 kilo equals approximately two pounds). In the normal individual a disagreeable sensation is said to occur on pressure amounting to 5-10 kg., followed by pain on pressure of 10 kg. and over. It is true that in 78.3 per cent. of the cases of tabes (33 patients), there was a diminution of sensation down to evident analgesia. Keeping in mind the fact, how-

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ever, that similar variations occur in healthy individuals also, and that on the other hand they may be entirely absent in very severe cases of tabes, the value of the observation is doubtful. In addition to the analgesia of the Achilles tendon, the author invariably found the classical symptoms of tabes in his cases; and, on the basis of the material examined by him, he holds that Abadie's symptom is an early symptom of tabes, but by no means a stigma of the disease.

Asthma and its Aetiological Treatment.—Brugelmann (Therapeutische Monatshefte) describes asthma as a tracheobronchial spasm from irritation of the respiratory centre. This irritation may be traumatic, reflex, or toxic. In each case careful examination into the ætiology of the attack is necessary, as this is very varied and often escapes the attention of the physician. For example, many cases are due to a plantar hyperidrosis, and will resist the classical treatment if we neglect the treatment of the local causes. We should also look carefully for asthmagenic points in the rhinopharynx, and render them insensible. Care should be taken not to give a number of hygienic and dietetic directions, which may tend to favor the phobia by autosuggestion. Climatic treatment should not be indiscriminately advised, but each case

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should first be carefully studied and appropriate local treatment instituted.

Surgical Treatment of Thrombophlebitic Puerperal Infection.

Guiseppe Guiccidardi indicates thrombophlibitic puerperal infection as a rare form that is distinct in symptoms, diagnosis, and prognosis from the other forms of puerperal infection. The fever is not an index of the pulse rate, which is independent of the height of the rise of temperature. The temperature curve is pyemic and is accompanied by severe chill; the general condition and color are bad, and the abdominal pain is peculiar in character; bimanual examination enables the operator to feel the thrombosed veins as hard cords. Bacteriological examination gives such different and contradictory results that it is of little value. The leucocyte formula gives little information. Ordinary obstetric treatment is useless, and only surgical intervention promises good results. Both abdominal and vaginal hysterectomy are useless and resection of the thrombosed veins is dangerous. The method of election is ligation of the veins. It results in the disappearance of the infective local process and of all pain, and ends in the recovery of a fair proportion of patients. The best time for intervention is about the twentieth day.—Annali di Ostericia e Ginecologia.

Treatment of Surgical Tuberculosis at the Seaside.

Riccardo Sabatucci describes the benefits of treatment of cases of surgical tuberculosis by a sojourn at the seaside as of value in improving the general conditions as well as the local ones. The observations of these cases by the author has led him to change entirely his opinion with regard to the value of early operation in such cases. He now treats them by a so-

journ in the open air at the seaside. Such treatment has been given for some years in France and Italy especially. The author's experience refers to the hospital at Anizo, which is located on a point of land 400 feet above the sea, in a villa formerly used by one of the popes, surrounded by a large and beautiful garden. The greatest benefits are received in glandular and osseous tuberculosis, and in those cases that have not undergone operation. The good results are to be had in eighty-four per cent of the cases. Only immobilizing apparatus was used, with drainage and scraping when necessitated by sinuses. The effect on the blood was marked, there being found by careful examination increase in the number of red corpuscles, diminution of the leucocytes, increase of hemoglobin, diminution of polinucleosis of neutrophiles, increase of eosinophiles, and diminution of lymphocytes.—Gazetta Medica di Roma, December 1st and 15th, 1906.

Symptomatology and Early Diagnosis of Cancer of the Cervix.

Polosson speaks strongly of the necessity of early diagnosis of the cancer of the cervix, since delay allows the patient to pass into the inoperable stage. Cancer in the cervix occurs much earlier than cancer of the body of the uterus, being most frequent from forty to fifty years of age, and occurring as early as the twenty-first year. It does not affect the general health for a long time. It does not occur in virgins and is more frequent in multiparae, lesion of the cervix as a result of delivery predisposing to cancer. Irregular hemorrhage before the menopause, or return of hemorrhage after it should lead to an immediate examination. Hemorrhage generally occurs after connection, a simple douche, or a violent movement. When a fetid, rose-colored discharge appears, the disease is already advanced. Pain is a late symptom, resulting from compression of the nerves in an involved broad ligament. Early diagnosis depends on examination of every case that has irregular hemorrhage, and the finding of an ulcerating, vegetating mass that is very friable and bleeds easily. In some cases there is a hard cervix, in which the ulceration is found in the canal The uterine cavity should be explored and a fragment removed for examination to aid in diagnosis when necessary. Immediate operation alone will save the patient.—Gazette de Gynecologie, February1, 1907.

Epithelioma of the Lacrymal Sac. Recurrence.

C. L. Lafon reports this case. The patient was a farmer forty-eight years old. In 1896 he noticed a condition of epiphora affecting both eyes. About the beginning of 1898 the region of the left lacrymal sac began to swell, and finally a bloody ulceration developed. Later on operation was performed. Incision showed that the growth involved the sac itself and the galvanocautery was used for destroying the diseased tissues. Histological examination of the debris showed the growth to be an epithelioma. Again in 1899 the patient returned to the hospital with a growth in the region of the wound; this was destroyed by the thermocautery. Three months later there was a recurrence. Again for th third time the patient was operated upon and recovery appeared definite. But at the beginning of 1905 the patient again appeared, showing the lacrymal region in a diseased condition. This case is of interest for several reasons. The epithelioma appears to have begun in the mucosa of the sac, a very unusual occurrence. The interval of five years and a half which elapsed after the first interventions is worthy of note. Finally, recurrence extending slowly up under the skin without appearing to have a tendency to destroy it is interesting. Lafon has the intention of operating again in order to remove as far as possible all of the diseased tissues.—Journal de Medecine de Bordeaux.

Phlebosclerosis.

Agostino Carducci has studied the occurrence of sclerosis of the veins and the clinical symptoms arising from the condition in eighteen cases, of which he gives us the histories. These changes in the veins are manifested by diminution in the caliber of the vein and absence of any coagulations in the vessels. There is a proliferation of the intima without any tendency to regressive alterations. It is more frequent in the subjects of arterio-sclerosis, tuberculosis, malignant tumors, and malarial cachexia. There is no definite knowledge of the pathogenesis of this condition. It has no particular symptomatic syndromes, the functional results being inconsistent. It may be diagnosed when it attacks the superficial veins, but not in the deep veins. It must be diagnosticated from spasm of the veins and from thrombosis. Prognosis is good, and treatment is unknown.—Il Policlinico.

Significance of Hypothermia with Slow Pulse in the Puerperium.

C. Merletti has studied the pulse curve in

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about a thousand cases in the puerperium and has observed that whenever there is an infective process of the genitals, no matter what the location or the severity of the process, the pulse rate rises in proportion to the rise of temperature. On the other hand there are cases in which with a rise of temperature there is no increase of pulse rate, or it is even lower than normal; in none of these cases is there any sign of genital affection, and the fever goes down without any treatment for the genitals. There is also no alteration in quality, such as dichrotism, in these cases, as is found in ordinary febrile affections. Such fevers are due to gastrointestinal troubles, intercurrent diseases, anomalies of lactation, or of the lochia, nervous conditions, etc. The practical deduction from these facts is that in cases which with the rise of fever the pulse remains normal we should abstain from treatment of the genitals.—La Riforma Medica.

The Prevention of Puerperal Mastitis.

Doderlein states that a solution of india rubber in benzine, to which one per cent of formalin is added, can be used as a local application to prevent the formation of minute fissures about the nipples of nursing women. The entire nipple is painted with this solution and as soon as the benzine evaporates a little sterile talcum powder is sprinkled over the area treated. In this way a delicate membrane is formed which occludes the lacteal ducts. but the first time the infant nurses the act of

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suction perforates the thin layer of rubber over the mouth of each duct. The nipple remains protected against all infection or abrasion, however, and in the 200 cases in which Doderlein has employed the method he has found it an extremely valuable prophylactic against mastitis. The applications are repeated every two or three days and by this means it is stated that the discomfort of nursing due to tender nipples is very greatl yalleviat. ed.—Ventralblatt fur Gynakologie.

Uterine Inversion.

Pinard reports the case of a multipara who was delivered with forceps. Uterine inversion followed, which was reduced by the hand of th accoucher. Th fourth day, as the patient was at stool, the inversion occurred again. At this time a Champetier de Ribes bag was applied and the uterus was replaced. Pinard insists upon the rarity of spontaneous uterine inversion. This condition is most often due to violent tractions on the cord. Nevertheless there are other causes. A case was observed by Queirel in which the placenta was inserted on the fundus of the uterus. At other times this catastrophe occurs from uterine inertia, which is sometimes primary and sometimes secondary. In recent cases reposition may generally be obtained by the hand of the physician. In cases not amenable to this treatment the Champetier de Ribes bag is a wonderful instrument.—La Bulletin Medical.

Congenital Malformations and Transposition of the Viscera.

Garrod and Langmead have recently had this case under their care. The patient was a girl nine months old. She was brought to the hospital suffering from severe constipation. Her general condition was poor. On the day following birth she was operated on for imperforate anus. The child had the appearance of an idiot of the Mongolian type. Physical examination showed that the hetrt was on the right and the liver on the left side. This was confirmed by the x-ray. Autopsy showed that the heart was not only displaced, but that it was also deformed. There was persistence of Botallo's foramen, the interventricular septum was incomplete, and the arterial channel was permeable. The superior lobe of the right lung was absent. Garrod has often remarked the coincidence of the transposition of viscera with malformations, and a special conformation of the head relating to the Mongolian type.—La Presse Medicale.

The Treatment of Acute Suppurative Conditions by Bier's Method.

Kaefer praises Bier's congestion method very highly, and states that he has found it of value in a great variety of inflammatory conditions. One application of the principle of hypermia to which he attaches great value is in the treatment of operation wounds. At the first signs of infection, such as redness or pain, the hyperemia is induced, by bandaging if an extremity is involved, or by suction apparatus if the wound is on the trunk, instead of following the customary plan of removing the stitches. The latter procedure usually can be avoided entirely in this way and the threatened infection be staved off so that healing by first intention is secured. The plan has been found especially useful in dealing with amputations of fingers on the necessarily very dirty hands of factory operatives.—Zentralblatt fur Chirurgie.

Serum Treatment of Cerebro-Spinal Meningitis.

Jochmann has carried out a series of experiments to find out whether it is possible to produce a serum which will prove useful in cerebro-spinal meningitis. He employed numerous strains of coccia obtained from different cases. The organism varies much in virulence, but by using the most virulent forms he was able to produce a polyvalent serum which exerts distinct agglutinating and therapeutic properties. Horses were treated first with subcutaneous injections of killed cultures, followed by intravenous injections. Subsequently injections of living cultures were employed. Eventually a serum is obtained which possesses high agglutinating properties, which proved very useful as a sero-diagnostic test for doubtful forms of cocci. Using it, he was able to show that the meningococcus is frequently present in the naso-pharyngeal tract of apparently healthy individuals. He demonstrated them in seventeen out of twenty-four healthy people. The intraperitoneal injections of serum confers protection to mice against six times the ordinary lethal dose of cocci. The simultaneous injection of serum and cocci is also antidotal. The mode of action of this protection is not absolutely certain. The toxin is endobacterial, since the killed germs are more fatal than living cultures. The serum exerts no direct anti-bacterial action, since contact with it for twenty-four hours does not prevent the subsequent growth of the cocci. On the other hand, the addition of fresh complement to

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the serum, in the form of a trace of fresh horse serum, results in a retarding action on growth; and, similarly, the insertion of a closed capsule, containing the cocci in the peritoneum of a passively immunised animal, is accompanied by delayed growth. Hence the fluids of an immunised animal must contain some substance, which exhibits growth. In this last experiment the direct action of leucocytes is excluded, but another type of experiment shows that under the action of the serum the phagocytic action of leucocytes is increased, so that the serum seems to contain a large quantity of bacteriotropic substance.

Therapeutic observations on human beings show that the use of the serum is followed by a fair measure of success. Large doses of 20 c.c. are necessary. This may be given subcutaneously, and also directly injected into the spinal cord. If the fever returns, these injections may be repeated. Of seventeen patients treated thus, only five died. Of the others, in nine cases (of which six received intradural injections also) the injection was followed by definite, permanent fall of temperature. In two cases the temperature was increased for about twenty hours before it fell. In other three cases there was only a temporary fall of temperature. In many cases the injection was followed by marked lessening of the headache and stiffness of the neck, while the patients became much clearer mentally. To relieve the intradural pressure the serum treatment may be associated with repeated spinal puncture. In no case has the injection of this quantity of serum caused any inconvenient sysptoms, as local irritation, rash, or albuminuria.—Deutsche med. Wchnschr, Leipsig, 1906, No. 20.

The Treatment of the Heroin Habit.

Heroin is closely allied in chemical composition to morphine. Pharmacological experiments on animals show that heroin is rather more toxic than morphine. It differs from morphine in its greater tendency to cause convulsions, rather than cerebral depression. Despite these disadvantages, heroin has been very largely employed as a substitute for morphine, both as a depressant of the respiratory centre and for alleviating pain. The effect of heroin is not lasting, and it is necessary to increase the dose to maintain the effect, and a drug habit is rapidly established. In the treatment of the morphine habit the substitution of heroin has frequently been attended with dis-

astrous results, as a new craving is established. Of sixteen cases of heroin craving, which Duhem has investigated, three developed the craving after using the drug in asthma, four were morphino-maniacs, who were treated by substitution of heroin. In three instances the heroin was originally prescribed for a painful affection, and the remaining six cases gave different accounts of mental instability which had induced them to use the drug. It is interesting to note that when used for its antispasmodic effect in asthma, or respiratory disease, the dose reached is much larger than when employed for the analgesic action. In one instance the patient took as much as 22 grs. as a dose. When employed as a substitute for morphia, large amounts are also reached.

In breaking the patient of the habit of taking the drug, a plan similar to that employed with the morphine habitute is followed, but the effect is more risky and variable. The patient is isolated, the gastro-intestinal excretion is regulated, and the dose of heroin is rapidly diminished, till at the end of six or seven days the drug is completely stopped. Certain peculiarities are to be noted. Whereas with morphino-maniacs it is expedient when diminishing the dose to continue to use morphine, in heroin-mania the continued use of heroin is unsuccessful; it is better to substitute morphine injections. For if, during the cutting off period in a morphino-manic, any cardiac embarrassment develops, the injection of a very small quantity of morphine is sufficient to relieve the distress, with heroino-maniacs the similar employment of heroin is not successful, whereas the substitution of morphine gives immediate relief. Consequently the best routine practice is to cut off all heroin at the commencement of treatment, and employ only morphine during the period of diminution of dose. Even with this precaution it is rare for the deheroinisation to be effected without some disturbance. Failure of respiration is usually the stumbling-block. When the dose is being diminished, an insidious failure of respiration is frequent, and as the onset is very gradual, great care has to be observed that the patient is kept constantly under observation. The patient appears to be quite easy, lies on his back, with good pulse and respiratory movements, when without warning the respiration ceases, the patient turns pale, the eyelids twitch, the face becomes covered with a cold sweat, and the patient loses consciousness. Energetic stimulant treatment and injection of morphine is necessary to restore the patient. The subsequent convalescence is much slower with heroin than with morphine, and it takes the patients several weeks to regain their proper weight. —Progres med., Paris, 1907, February 23.

Every Physician Knows.

Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies, has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination. After fevers, inflammations, etc., there frequently remain various painful and annoying conditions which may continue, namely: the severe headaches which occur after meningitis, a "stitch in the side" following pleurisy, the precordial pain of pericarditiis and the painful stiffness of the joints which remain after a rheumatic attack—all these conditions are relieved by this combination called "Antikamnia & Salol Tablets" containing 2 1-2 grs. each of antikamonia and of salol and the dose of which is one or two every two or three hours. They are also recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol neutralizes the uric acid and clears up the urine. This remedy is a reliable one in the treatment of diarrhoea, entero colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours will give results that are gratifying.

Laryngeal Cancer.

Attention is called by the writer to the great importance of early recognition of malignant growths of the larynx; the earlier the operation, the greater the chance of cure. An extremely valuable laryngoscopic sign of beginning cancer is the following: if the vocal chord from which a suspected laryngeal growth springs shows at an early period of the disease a defect of mobility other than due to mechanical impaction of the growth in the glottis on phonation, this sign is almost pathognomonic

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for the malignant character of the tumor. If, however, this sign should yet be absent when the case comes under observation, such negative evidence does by no means exclude malignancy. The writer favors the preliminary microscopical examination of an intralaryngeally removed piece of the new growth; it may not only fully corroborate the clinical diagnosis, but also strengthen the surgeon in proposing immediate radical operation. It is highly improbable that the few days which must elapse between the intralaryngeal removal and the report of the miscroscopist are likely to bring about any important deterioration of the local conditions, whilst the fear of local autoinfection of previously healthy parts in the larynx or of metastasis elsewhere is equally little justified.

So far none of the modes of treatment, other than surgical, such as Doyen's serum, trypsin injections, ets., have proved of any value. In cases of intrinsic laryngeal cancer, the operation of choice, in the author's opinion, is thyrotomy. Of 25 patients operated upon by him, 20, or 80 per cent, have remained lastingly cured. The vocal results were surprisingly good. One great advantage of the operation is that if recurrence takes place, more radical operations can still be done. Intralaryngeal operations are insufficient, and, as a rule., damaging to the patient. Hemilaryngectomy or partial extirpation will probably ultimately be limited to those cases of intrinsic cancer which come under observation only at a period when the disease has already invaded the cartilaginous framework, and to a few exceptionally favorable cases extrinsic cancer. Subhyoid pharyngotomy can be employed only in a very limited number of cases, namely, in those in which the disease is situated near the upper aperture of the larynx. As regards total extirpation of the larynx, the author's experience has been anything but encouraging. It is beyond the shadow of a doubt one of the most mutilating operations in surgery. It does away with speech in its ordinary sense, and in not a few cases to this loss of speech is added permanent difficulty in swallowing, which compels the patient to take his meals alone, or even to be fed artificially.—Semon (British Medical Journal.)

The Treatment of Carcinoma With Trypsin.

Von Leyden and Bergell have made trials of pancreatin in the treatment of cancer, as its use seems to them to be rational in theory.

To get a sterile preparation, the pancreatin was shaken with ether for 24 hours, and the ether removed by decantation and dissication in vacuo. It was next shaken ten hours with sterile water and the solution finally cleared by centrifugation. This gave a concentrated, stable solution. They made use of the ferment by direct injection and by oral administration, having first determined that, when given in large doses, a part at least is absorbed and reappears in the urine. Their results were not so favorable as others have reported. They got only a circumscribed solution of the tissue by local injection and could determine no definite effect on internal tumors after oral administration of large doses for months. They think that nearly all not too far advanced stomach cancers, without metastases, react favorably. They have not observed in any case that a tumor responded to the treatment by increased growth, as it is the habit of these tumors to do after mechanical, chemical, and thermal insults. They promise further work on the subject, which they evidently regard as encouraging.—Zeitschs. fur Klin. Med.

Influence of Quinine on the Uterus.

Maurer reports on the use of this drug in the women's clinic in Giessen. In all it was used in 78 cases, in 63 of which it was given to stimulate labor pains, or to strengthen them, and in 15 cases it was used in the treatment of abortion. In 78 per cent of the cases a distinct action of the quinine could be observ- with what the fanatics in control call the "reform" movement; "reform" inaugurated by inactive. From their experience Muarer recommends that the drug should be given by mouth when possible, but it may be given by hypodermic if necessary. Fifteen grains of the sulphate are given and if, in the course of an hour, no action has appeared, seven and a half grains more are administered. Should this also remain inactive, another dose of seven and a half grains is given at the end of half an hour, but if this third dose has no effect it is not worth while to continue the drug. In 42 of the 50 cases in which it was used during the course of labor it strengthened the pains and made them more regular. In two cases in which the membranes had ruptured previously and no pains were present, after the use of quinine, powerful contractions appeared which shortened the duration of labor. In such cases as these Maurer found the drug to be of the greatest help, and he gives the details of several very interesting cases to illustrate its action in this class of cases, as well as others. For the bringing on of premature labor the drug was used in 9 cases with good results and in 5 it had little effect. In 14 cases of abortion it was used with good effect in 10. The author believes the drug is absolutely harmless to both the mother and child.—Deutsch. medizin. Worchensch.

Rectal Obstruction Caused by Calcified Uterine Myoma.

An unmarried woman, aged seventy, had suffered for some months from an obstruction which had in the last few weeks become worse. Rectal examination showed a hard, irregular growth situated in the pouch of Douglas and attached to the utero-vaginal walls. A diagnosis of rectal cancer was made. Laparotomy revealed a stone-hard tumor the size of the fist. This was easily separated from the atrophic uterus, with which it seemed to have but little connection. Its irregular projections rendered its separation from the rectal and posterior varginal walls difficult. Microscopically it proved to be a markedly calcareous myoma. Calcification occurs generally in subserous fibro-myomata and rarely in others. When they become detached, as is frequently the case, they form the so-called "uterus steine."—Deutche Zeitschrift fuer Chirurgie.

The Nurse.

Last week at Zanesville, O., the matron and entire force of nurses walked out on strike, because of clash of authority between the matron and chief of surgical staff of the hospital. The particular bone of contention in this case is immaterial to this article. The clash of authority is the chief subject, and is the cause of much feeling among physicians against trained nurses. A trained nurse was recently called to an obstetrical case in the country. The attending physician had finished his work, and gave the nurse her instructions. As he turned to leave, the nurse began telling him what she intended to do. When she got through, he said: "Let us understand each other right now. I am responsible for this case, and you are responsible to me. If you will not obey my directions, you must leave the case. A conflict of authority will not be tolerated by me." He had no further trouble with that nurse in that case.

All trained nurses are not as obnoxious as this one, but there are enough of them almost as bad to create considerable animosity to-

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ward trained nurses as a class among physicians and the general public. "Familiarity breeds contempt," and it is a question whether the intimate contact between internes and nurses in training is not partly to blame for this unfortunate state of affairs. Internes, as a rule, take it upon themselves to speak rather flippantly of the staff members, and these nurses leave the hospital with erroneous ideas of their own infallibility.

Another source of trouble is the over education of nurses as nurses. A slight addition to the curricula of most training schools would make them physicians. As in all other fields of learning, "A little knowledge is a dangerous thing," and it would be better for all concerned if the curricula were either added to or subtracted from.

The prices asked by trained nurses is prohibitive to all but the most affluent. They no doubt are worth the money, considering the years of studying and training required at present. Whether the whole system as at present in vogue of developing nurses is not at fault is a problem. It may be advisable to have a shorter course for general nursing, and more extended ones for special nursing.

A trained nurse leaving a training school has a rather exalted notion of her social dignity. It has been often said that it takes a nurse to nurse a nurse while nursing; in fact, a retinue of servants are placed at the disposal of nurses in aristocratic homes. All in all, a more sane attitude must be assumed by trained nurses toward the medical profession if they hope to prevent friction in the future. —Lancet Clinic.

The Southern Medical Association, comprising the States of Alabama, Georgia, Florida, Tennessee, Missippi, Louisiana, Florida, and Kentucky will meet at Birmingham, Alabama, in October, 1907, the definite days of the month not yet having been determined upon. The association has jumped into immediate favor with physicians of the South, and no doubt its first meeting will far exceed in enthusiasm and attendance the most sanguine expectations of the association's organizers. The charter will be left open until June 1, 1907, and all physicians returning applications bearing proper qualifications will be counted as charter members without further action on the part of the association. Full particulars concerning the association can be obtained from the secretary, Dr. Raymond Wallace. Chattanooga, Tenn.

The Medical Era's Special Editnons.

The Medical Era of St. Louis, Missouri, will conform to its usual custom and issue its yearly series of special Gastro-Intestinal numbers, embracing July and August. The August issue will be given over entirely to the consideration of every phase of Typhoid Fever. The ed, while in 22 per cent it was more or less a reformed homeopath, who, by the irony of Fate, becomes the leader and dictator of reguseries will contain about 35 or 40 practical papers and will contain a large amount of valuable information.

CENSORSHIP OF THE MEDICAL PRESS.

Czar Methods of the Octopus.

Amongst the "Regulations Regarding Exhibits" at this year's meeting of the A. M. A. is the following:

"No medical journal or publication can be exhibited that contains advertisements of drugs, chemical or similar preparations used in the treatment of disease, which does not conform to the rules of the Council on Pharmacy and Chemistry of the American Medical Association."

The enforcement of this ukase will exclude practically every medical journal published in America and Canada, excepting the "State" journals,—those wearing the collar of the octopus and bearing the union stamp,—and it will, or should, include the California tentacle also.

Are we living in America, or in darkest Russia? Is this the fourteenth or the twentieth century? Are we freemen, or serfs? Have we—as owners and publishers of legitimate medical journals—any rights whatever, that the machine is bound to respect? Have we the right to think and speak our sentiment—or are we to be controlled, in both, by the monstrous machine which would dictate to us, and "muzzle the press," under the denunciation of being "unclean," "infectious," and unworthy of support by the profession? Shall we not be permitted to "differ with Brother Paul"—as to the respectability of a pharmacal preparation? Who gave this council the right to dictate what the press shall and shall not advertise? This is the most insolent, high-handed and outrageous act, of all the brazen acts, of the political machine that controls the A. M. A. and its "organ." Will the effrontery and arbitrary exercise of a self-assumed authority, on the part of the Octopus, stop here? Hardly. If this is submitted to

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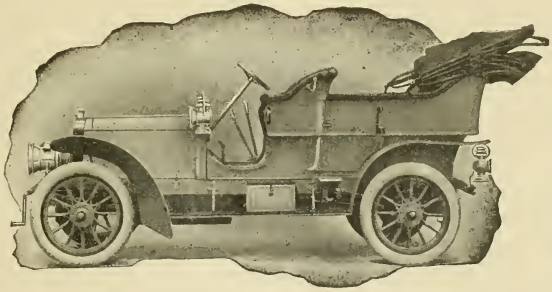

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by the American medical editors—those who do not wear the collar and the union stamp—we may look, next, to see an inspector with the A. M. A. union badge, stationed at each door at future meetings, to search our persons to see if any one has concealed about him a copy of any of the "infectious" and "unclean" publications (as Chase and Jonesy call the independent journals). We may look to see such person arrested, caught in the act of smuggling contraband publications, and arraigned on a charge of treason to the auto-

crat,—the czar of all the "schools" of medicine. Shall we, like Socrates, for "corrupting the youth of Athens," be made to quaff the hemlock for corrupting the morals of the younger men of medicine by insisting that there is virtue in pharmacy by the large as well as per the obsolete prescription compounding, and that thousands of the most experienced use,—and find useful,—hosts of the preparations advertised in the medical press? Will our editorial utterances be censored next?

The Association of American Medical Editors will meet at Atlantic City, June 4th, simultaneously, with the A. M. A. We will see what they will do about this monstrous assumption of authority. If they tamely submit to the thraldom—submit to being put in irons, as it were, and exhibited in the pillory as "unclean and infectious" and unfit to be represented in the A. M. A., they may next expect to be bodily kicked out, and they would deserve to be. These editors are all members of the A. M. A., and they pay tribute to Caesar.

I reproduce the following from the Texas tentacle of the Octopus:

" * * * A careful perusal of the reading pages of most of these journals will demonstrate a bitter, prejudical, carping, vindictive and antagonistic spirit on many vital subjects affecting modern progress. These journals might do a useful work; we wish them well, but they must clean house or be labeled 'infectious,' and be shuned by the profession."—Abstract from an editorial in the Texas State Journal of Medicine, March, 1907.

["Modern progress" is good. Progress, backward, like the crab. It is a new name for degeneracy.—D.]

I will say for myself, I am not a member of the A. M. A., having drawn out fifteen years ago,—although I have been solicited—by Simmons—many times, to become a member. I am not in accord with the policy of the clique who control the Texas State Medical Association; who have played that splendid body into the hands of the Octopus, and who would now out-Herod Herod! I am "bitter and antagonistic" only to the trickery which has enabled certain pliant and complaisant members to get control of, and to gag and tie the majority. I am fighting for the association, to free it from this thraldom; and because I love the association and grieve to see it so debased. I have, always, for twenty odd years, stood for, advocated, championed, and defended the best interests of the body of the association, as against those who would degrade it, and who, by the forcing down our throats of that absurd Joseph's coat of many colors—the absurd mixed board—have degraded it. Two of our most distinguished leaders, and ex-presidents, denounced it, to me, as a disgrace to the profession, and a stultification. Both these gentlemen—who, for twenty-five years, have not missed a meeting—absented themselves, as did yours truly, from the recent meeting at Mineral Wells. The political methods of the minority will drive off many other self-respecting members. They will surrender with a silent protest, and will stay away. I go on record, for the hundredth time, perhaps, as protesting with all my soul against the recognition of the pathies as "brethren,"—the recognition of and toadying to these people whom the "regulars" have, for years, snubbed and ridiculed. I'll die with my boots on and my spurs, if die I must, fighting for the rights and the honor of legitimate medicine.

I know that in doing so I antagonize some warm personal friends; but it is not a matter of friendship,—it is a matter of principle;—and I have the consolation of knowing, feeling and believing that I am right; though my lar medicine!

Medical Journal.

Will ye editors wear his collar?—Texas

Anemia and Its Relation to Catarrhal Inflammation.

No disease is more common than chronic inflammation of the mucous membranes. Doubtless many causes contribute to the prevalence of this malady which spares neither the young nor the old, the rich nor the poor, the high nor the low. Prominent in its etiology, however, are sudden climatic changes, the breathing of bad or dust laden air, bad hygiene in personal habits, and bad sanitary surroundings. These factors all singly or collectively tend to lower the vitality of the whole human organism, and as a consequence the cells throughout the body perform their various functions imperfectly, or not at all. The quality of the blood becomes very much lowered, with the result that tissues that have important work to perform, do not receive sufficient nourishment and so falter from actual incapacity. The red blood cells are reduced in numbers and the hemoglobin is likewise diminished. Because of the blood poverty the digestive process is arrested, nutritive material is neither digested nor absorbed, and a general state of inanition ensues. It is not surprising under these circumstances, therefore, that chronic inflammation of the mucous membranes is produced. These highly or-

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ganized structures with very important duties to perform naturally suffer from insufficient nutritional support, and the phenomena of catarrh follow as a logical result. Perversion and degeneration of the cells in turn takes place, and more or less permanent changes are produced in the identity and function of the tissues.

Appropriate treatment should consist primarily in correcting or eliminating all contributing factors of a bad hygienic or insanitary character. The individual should be placed under the most favorable conditions possible and every effort made to readjust the personal regime. Local conditions of the nose, throat, the vagina, or any other part, should be made as nearly normal as possible by suitable local applications or necessary operative procedures. Then attention should be directed immediately to improving the quality of the blood and thus increase the general vitality. For this purpose vigorous tonics and hematics are desirable and Pepto-Mangan (Gude) will be found especially useful. Through the agency of this eligible preparation, the blood is rapidly improved, the organs and tissues become properly nourished and accordingly resume their different functions. Digestion and assimilation are stimulated and restored to normal activity, and the various cells and organs start up just as would a factory after a period of idleness. In fact Pepto-Mangan (Gude) supplies the necessary elements that are needed to establish the harmonious working of the whole organism. When this result is achieved, the catarrhal condition is decreased to a minimum and distressing symptoms are banished, a consummation that is highly gratifying to every afflicted patient, and every earnest practitioner.

The treatment of Inoperable Malignant Tumors—Carcinoma—is the subject of an article by Prof. J. M. G. Carter, which he read before the Illinois State Society and printed in a recent number of the Illinois State Medical Society.

He says in part, Since nuclein contains phosphorus it is a tonic, and its germicidal properties has other therapeutic value. That it is a rational agent in the treatment of various dyscrasiae is attested by clinical experience. For a number of years the writer has used nuclein with such success as to lead him to hold it in high regard as an agent for the treatment of malignant growths and other low dyscrasiae. The particular preparation was Reed & Carnrick's Protonuclein. The dose was 24 grains a day.

The bromide of gold and arsenic is another remedy, which, in my hands, has

seemed to prove useful in the treatment of inoperable carcinoma, but I have always used it in connection with other agents. I have had more confidence in the nuclein than in the bromide chiefly, perhaps, because I had two cures in which I did not use the bromide, while I have had none where nuclein was not used. I have come to consider the administration of nuclein and the bromide of arsenic in cases of inoperable carcinoma. It is the combination upon which I depend rather than on either agent singly.

I have used this method of treatment in many cases with apparent benefit, but I am able to report only five cases in which the treatment was carried out as prescribed from the time the patient came under my observation until the termination of the case. One of the cases died. The other four recovered.

Tyree's Antiseptic Powder.

A quantitative, qualitative, bacteriological and clinical analysis of this preparation is embodied in a most interesting little brochure, which will be mailed physicians by the manufacturer, J. S. Tyree, at Washington, D. C., free of cost upon application. We firmly believe that it is not so much what it contains that gives it its marked value, as the way in which the ingredients are combined.

For leucorrhoea, gonorrhoea, vaginitis, pruritus and ulcerated conditions of the mucous membrane, one to two teaspoonfuls to a pint of water three or four times a day. For scrofulous, syphilitic and varicose ulcers, apply the powder full strength or dilute with boracic acid. As an ointment, use from one to three drachms to one ounce of petroleum. For spraying the nose and throat, from twenty-five to one hundred grains to one pint of water (dissolves immediately). For immediate deodorizing and disinfecting, sprinkle the powder direct upon the object affected; the results will be instantaneous. For prickly heat, poison oak, squamous eczema and other conditions of a similar nature, use from one to eight teaspoonfuls to a pint of water (has proven very serviceable for these conditions). For the purposes above enumerated it hardly has an equal.

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A spray of Kelene (Chloride of Ethyl in a state of absolute purity) due to its low boiling point, produces anaesthesia by utilizing the intense cold resulting from its quick evaporation.

The use of Kelene, (Pure Chloride of Ethyl) being void of dangerous effects, has been proven invaluable in past years as a local anaesthetic in medicine and surgery.

Owing to the Kelene boiling by the mere warmth of the hand, the liquid escapes in a vaporized stream, which can be regulated by the operator as desired. A so-called finer and colder spray can be obtained by a mixture of Chloride of Ethyl with other products of a still lower boiling point, but although the freezing action is sooner produced, most patients complain of a rather painful sensation which is avoided in our tubes by the use of pure Chloride of Ethyl.

The Passing of Winter.

With the passing of winter many an individual without being actually sick is still weak and debilitated, tiring easily, with greater or less susceptibility to every changing wind. The intelligent physician promptly overcomes this condition by suitable medication, and no more efficient tonic can be employed than the well-known Gray's Glycerine Tonic Comp.

The Nursing Mother.

The extra burden which a nursing mother has to bear, often places a greater tax on her strength and vitality than she can successfully meet. Rational treatment aims at an increase of her vital physiological functions, and a corresponding increase in her physical strength.

No remedy has a more positive value for this purpose than Gray's Glycerine Tonic Comp., and to many a physician it is the one tonic that meets every requirement in such conditions, as it is not only remarkably effective but has no contra-indications.

Conservative Operations for Myomatous Uterus.—Martin (Festschrift fuer Prof. v. Ott; rev. in Cent. f. Gyn.) in the past six and one-half years operated in 134 of his cases of myomata uteri radically, in 174 conservatively. Mortality (radical method) was 7.4 per cent.; (conservative method) 5.4 per cent. About three-fourths of his cases he was able to follow up for some time after operation. In general, those who had been operated on conservatively were in better health than those who were operated on radically. In none of this series of conservative operations had there been a renewed development of myomata. In an earlier series of 240 cases at Berlin there had been 12 such cases, but in none of them did the small myomata thus formed give rise to further symptoms. He believes that the conservative operation is absolutely justified, except in the presence of other complicating disease. The author prefers vaginal methods of operation wherever practicable.